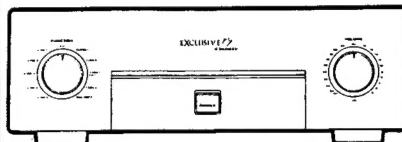


# Service Manual



ORDER NO.  
**ARP2155**

STEREO PREAMPLIFIER

# EXCLUSIVE C7

- This manual is applicable to the EXCLUSIVE C7/MEWZ type.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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# 1. EXPLODED VIEWS, PACKING AND PARTS LIST

## NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

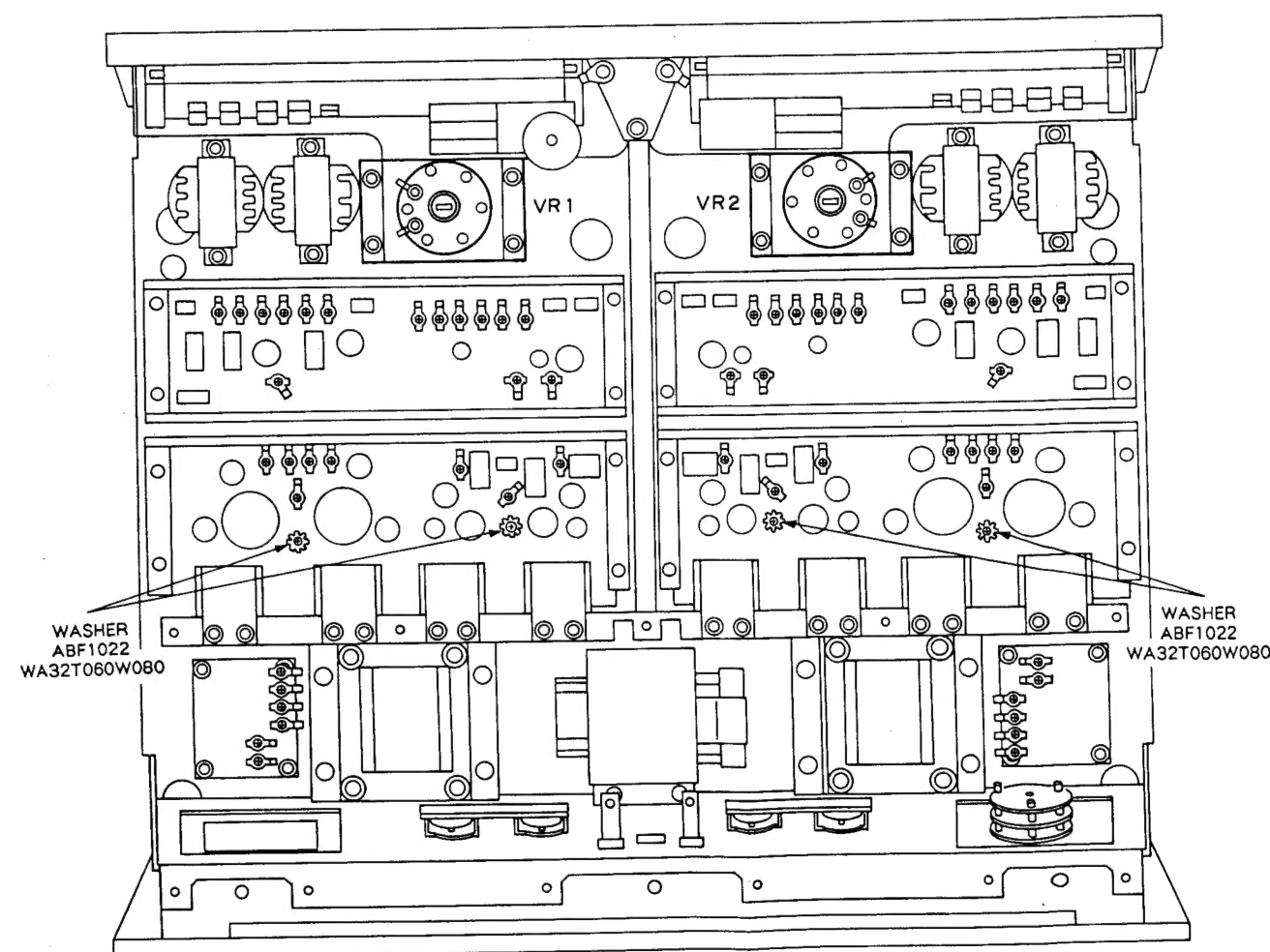
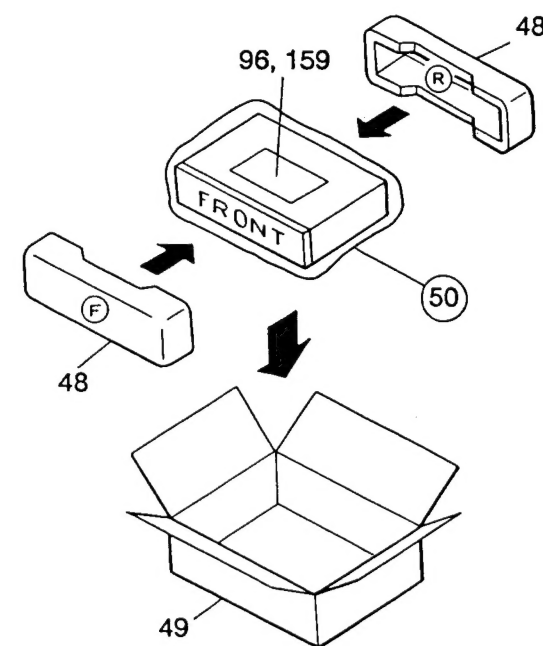
## 1.1 EXPLODED VIEWS, PACKING AND PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1.	KNOB LARGE	AAB1197		43.	WIRE CLIP B	
	2.	KNOB SMALL	AAB1198		44.	PAD	
	3.	POWER KNOB HOLDER	AAC1039		45.	DAMPING FELT A	
	4.	POWER KNOB MOULD	AAC1040		46.	DAMPING FELT B	
	5.	POWER KNOB CAP	AAD1889		47.	DAMPING FELT C	
	6.	DOOR	AAH1047		48.	PAD(F/R)	AHA1435
	7.	SEALING PANEL	AAH1049		49.	PACKING CASE	AHD2088
	8.	GOLD MOLE	AAH1051		50.	PACKING SHEET	
	9.	STAND-BY DISPLAY	AAK2051		51.	TERMINAL (2P)	
	10.	POWER LENS	AAK2052		52.	GROUND TERMINAL	AKE-045
	11.	NAME PLATE			53.	SOCKET (3P)	
	12.	SCREW	ABA-298		54.	FUSE HOLDER	AKR1001
	13.	SCREW (STEEL)	ABA1006		55.	GEAR MOLD L	
	14.	SCREW (STEEL)	ABA1011		56.	GEAR MOLD R	
	15.	SCREW	ABA1009		57.	AC CORD MOLD	
	16.	SCREW (STEEL)	ABA1014		58.	PIN JACK PLATE	
	17.	SCREW 3×14	ABA1024		59.	CHASSIS	
	18.	SCREW (STEEL)	ABA1048		60.	FRONT PANEL	ANB1475
	19.	SCREW (STEEL)	ABA1053		61.	REAR PANEL	
	20.	SCREW	ABA1101		62.	PANEL STAY	
	21.	WASHER (COPPER)	ABE1001		63.	FRONT SUB STAY	
	22.	BUSH	ABF1012		64.	SIDE REAR STAY L	
	23.	WASHER	ABF1020		65.	SIDE REAR STAY R	
	24.	COILED SPRING	ABH1067		66.	SIDE PLATE L	ANE1263
	25.	LOCK SPRING	ABK1014		67.	SIDE PLATE R	ANE1264
	26.	WASHER	ABE1002		68.	TOP PLATE A	ANE1299
Δ	27.	AC POWER CORD	ADG1093		69.	TOP PLATE B	ANE1300
	28.	LAMP HOLDER			70.	BOTTOM PLATE	
	29.	DAMP RUBBER			71.	AC CORD COVER	
	30.	DAMPER A			72.	PCB HOLDER A	
	31.	DAMPER B			73.	PCB HOLDER B	
	32.	DAMPER C			74.	PCB HOLDER C	
	33.	DAMPER D			75.	REAR P.C.B HOLDER -A	
	34.	DAMPER E			76.	REAR P.C.B HOLDER -B	
	35.	DAMPER F			77.	REAR P.C.B HOLDER -C	
	36.	DAMPER G			78.	REAR P.C.B HOLDER -D	
	37.	DAMPER H			79.	REAR P.C.B HOLDER -E	
	38.	DAMPER I			80.	REAR P.C.B HOLDER -F	
	39.	DAMP BUSH			81.	VOLUME STAY	
	40.	GROMMET			82.	DOOR STAY L	
	41.	BINDER			83.	DOOR STAY R	
	42.	WIRE CLIP A			84.	REAR STAY	

Mark	No. Description	Part No.
	85. LAMP STAY -B	
	86. . . . .	
	87. SHIELD PLATE A	
	88. SHIELD PLATE B	
	89. SHIELD PLATE C	
	90. P.C.B SHIELD STAND	
	91. DIODE SHIELD PLATE	
	92. TRANS. SHIELD PLATE	
	93. AC CORD SPACER	
	94. JOINT	
	95. LEG ASS'Y	
	96. OPE.INSTRUCTIONS (G)	ARC1231
	97. DAMPER	AXA1009
	98. STEPPING MOTOR	AXM1010
	99. SCREW	BBT30P100FCC
	100. SCREW	BMZ30P140FCC
	101. SCREW	CBZ30P060FCC
	102. SCREW	CBZ30P080FCC
	103. SCREW	CCZ30P060FCC
	104. NUT	NB23FMC
	105. NUT	NB40FMC
	106. NUT	NK90FCU
	107. SCREW	PMZ20P040FNI
	108. SCREW	VMZ30P080FCU
	109. WASHER (COPPER)	WB23FMC
	110. WASHER (COPPER)	WS40FMC
	111. CAPACITOR (C1 0.047/AC250V)	ACE1004
	112. CAPACITOR (C2 0.047/AC250V)	ACE1004
	113. . . . .	
	114. MICA CAPACITOR (C3, C4, C5,C6)	CMA221J500
	115. . . . .	
	116. . . . .	
	117. SOCKET(3P)	
Δ	118. FUSE (FU1 T1A)	AEK-402
	119. EQUALIZER AMP MODULE (IC1, IC2)	AXX1018
	120. FLAT AMP MODULE (IC3,IC4)	AXX1019
	121. FERITE CORE (L1)	ATX1015
	122. FERITE CORE (L2)	ATX1015
	123. LAMP (PL1 8V/100MA)	AEL-176
	124. LAMP (PL2 8V/100MA)	AEL-176
	125. PUSH SWITCH (S1 POWER)	ASG-545
	126. LINE TRANSFORMER (T1)	ATV1007
	127. LINE TRANSFORMER (T2)	ATV1007
	128. LINE TRANSFORMER (T3)	ATV1007
	129. LINE TRANSFORMER (T4)	ATV1007
Δ	130. POWER TRANSFORMER (T5)	ATT1141
Δ	131. POWER TRANSFORMER (T6)	ATT1141

Mark	No. Description	Part No.
Δ	132. POWER TRANSFORMER (T7)	ATT1142
	133. VARIABLE RESISTOR (VR1)	ACW1011
	134. VARIABLE RESISTOR (VR2)	ACW1011
	135. VARIABLE RESISTOR (VR3)	ACW1012
●	136. PIN JACK -L ASS'Y	AWZ3247
●	137. PIN JACK -R ASS'Y	AWZ3248
●	138. BALANCE -L ASS'Y	AWZ3249
●	139. BALANCE -R ASS'Y	AWZ3250
●	140. CR -L ASS'Y	AWZ3251
●	141. CR -R ASS'Y	AWZ3252
●	142. POWER SUPPLY -L ASS'Y	AWZ3253
●	143. POWER SUPPLY -R ASS'Y	AWZ3254
●	144. DIODE -L ASS'Y	AWZ3255
●	145. DIODE -R ASS'Y	AWZ3256
●	146. MAIN CONTROL ASS'Y	AWZ3257
	147. FUNCTION SW ASS'Y	
	148. FRONT SW-A ASS'Y	
	149. FRONT SW-B ASS'Y	
●	150. REGULATOR ASS'Y	AWZ3261
	151. SCREW	ABA1050
	152. SCREW	ABA1027
	153. SCREW	ABA1052
	154. SCREW	PMZ30P050CAD
	155. WASHER	ABF1022
	156. WASHER	WA25F065M050
	157. WASHER	WA32C070S050
	158. SPACER	ABF1002
	159. POLISING CLOTH	E33-009
	160. FRONT SW-D ASS'Y	
	161. FRONT SW-C ASS'Y	
	162. CONTROL SHIELD PLATE	
	163. POWER SW SPACER	
	164. BONNET CUSHION	
	165. FUNCTION SPACER	
	166. SHEET A	
	167. SHEET B	

## 1.2 PACKING



The screw which is shown in the figure above is PMZ30P050CAD, the washer is ABF1022.

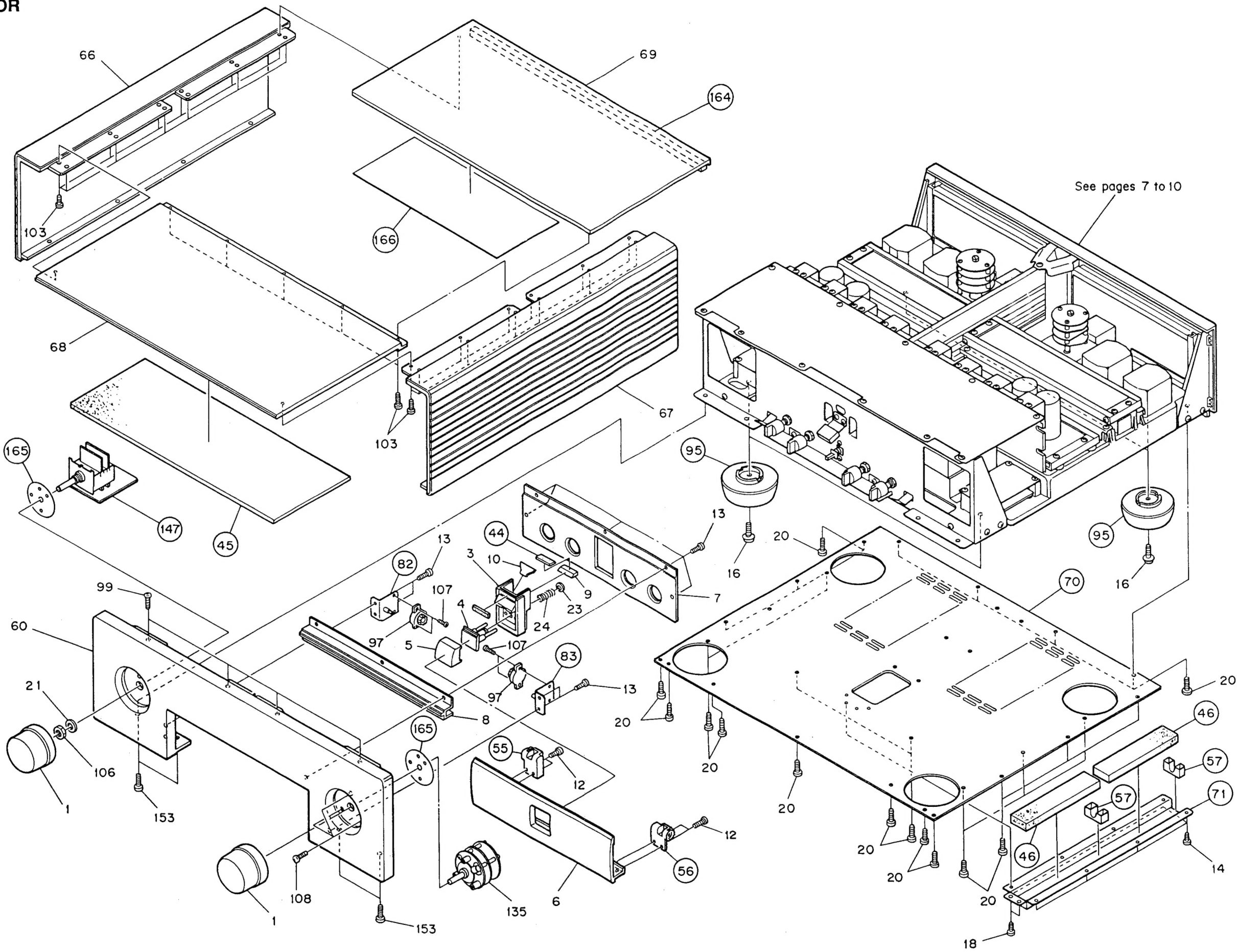
1.3 EXTERIOR

A

B

C

D



A

B

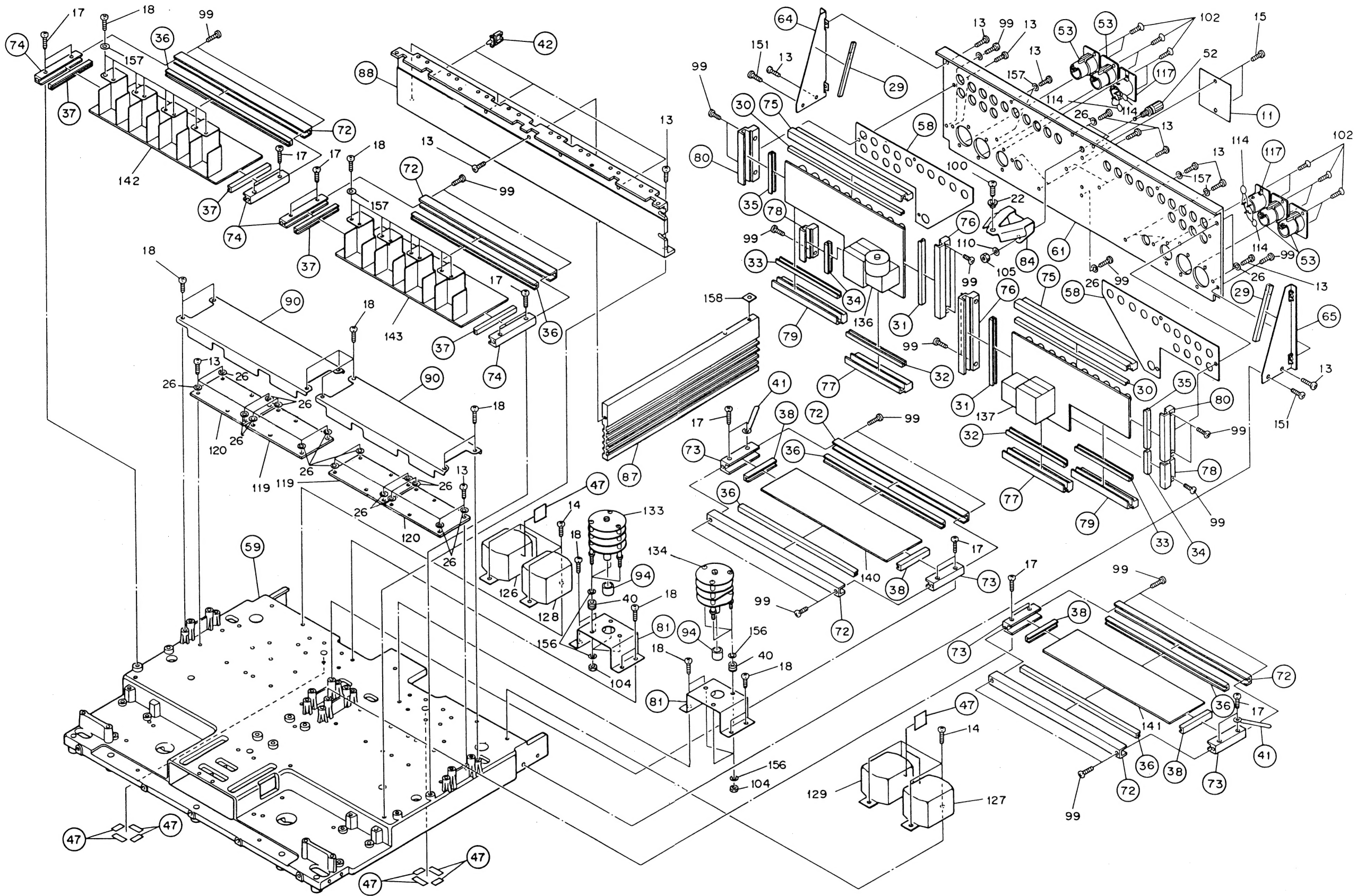
C

D





# 1.5 INTERIOR(2)



A

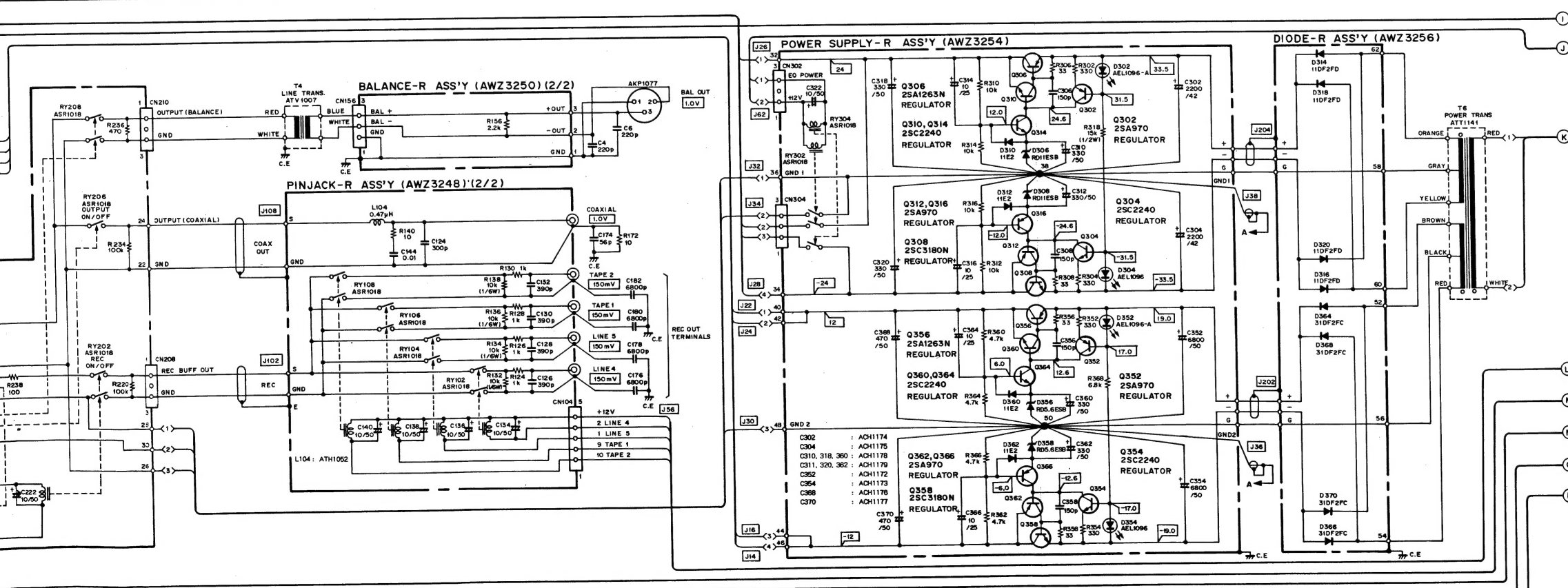
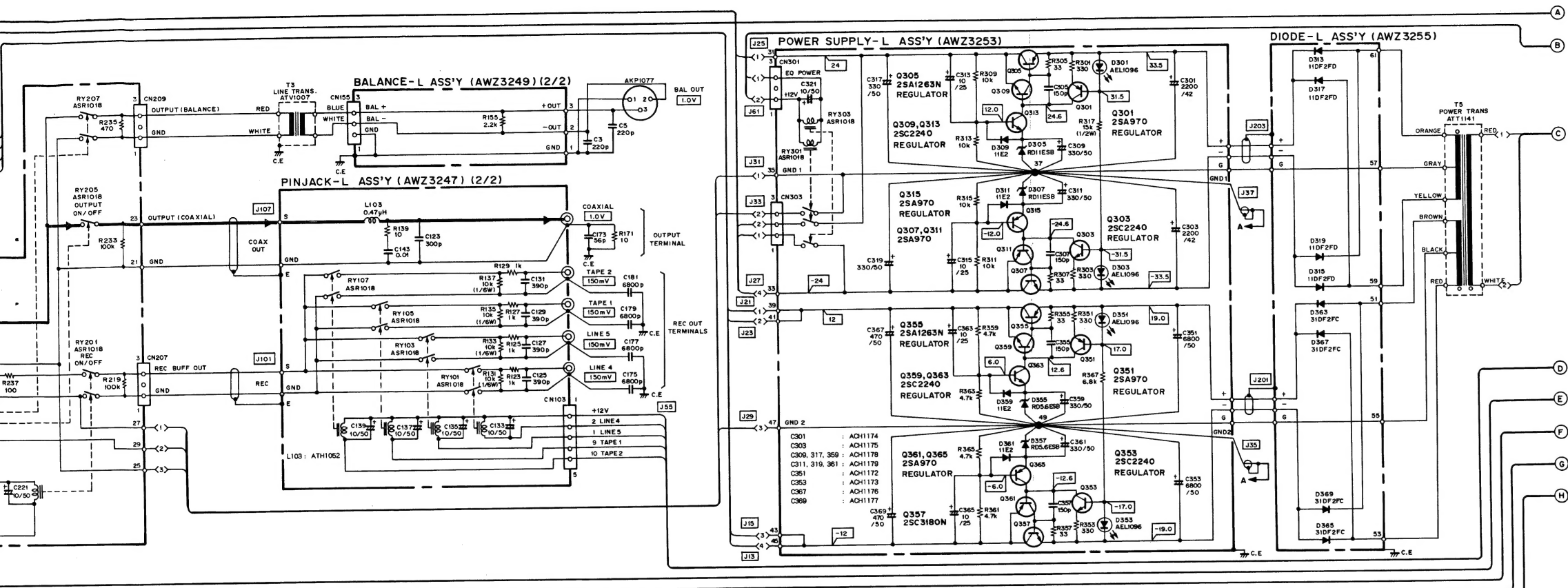
B

C

D







1. RESISTORS:  
Indicated in  $\Omega$ , 1/4W, 1/6W and 1/8W,  $\pm 5\%$  tolerance unless otherwise noted; k  $\Omega$ , M  $\Omega$ , (F);  $\pm 1\%$ , (G);  $\pm 2\%$ , (K);  $\pm 10\%$ , (M);  $\pm 20\%$  tolerance.

2. CAPACITORS:  
Indicated in capacity ( $\mu$ F)/voltage (V) unless otherwise noted; pF. Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:  
Signal voltage in rated output.  
DC voltage (V) at not input signal.  
Value in ( ) is DC voltage at rated power.  
mA ; DC current at no input signal.

4. OTHERS:  
Signal route.  
Adjusting point.  
The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
marked capacitors and resistors have parts numbers.

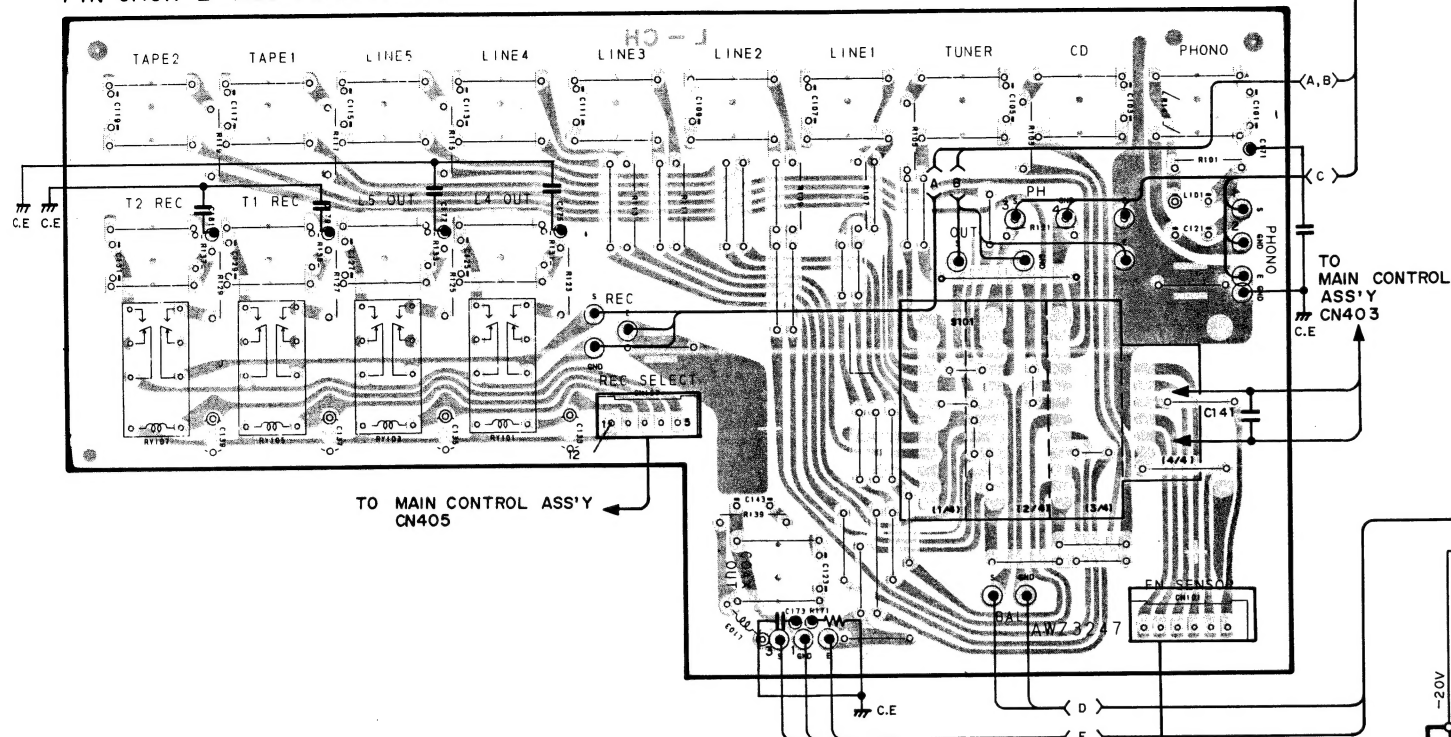
This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES (The underline indicates the switch position.)  
PIN JACK-L assembly,  
S101, S102: FUNCTION  
BALANCE-TAPE2-TAPE1/DAT-TUNER-PHONO  
-CD-LINE1-LINE2-LINE3-LINE4-LINE5  
FUNCTION SW assembly  
S601: FUNCTION

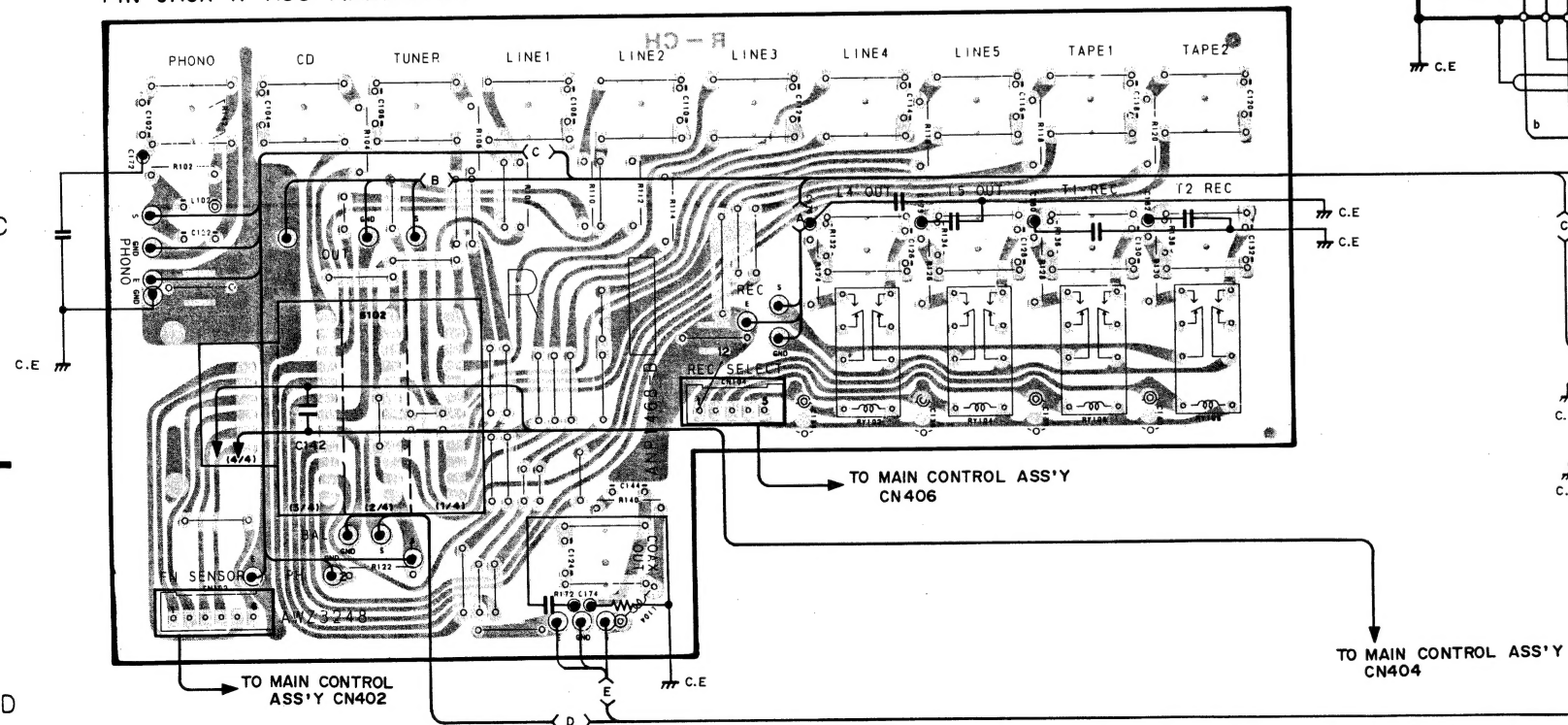
FRONT SW-A assembly  
S611: ABSOLUTE  $0^\circ - 180^\circ$   
S612: OUT PUT OFF-1-2-1+2  
FRONT SW-B assembly  
S621: REC OUT ON-OFF  
S622: BALANCE INPUT 1 - 2

Outside of P. C. BOARD Assembly  
S1: POWER ON-OFF

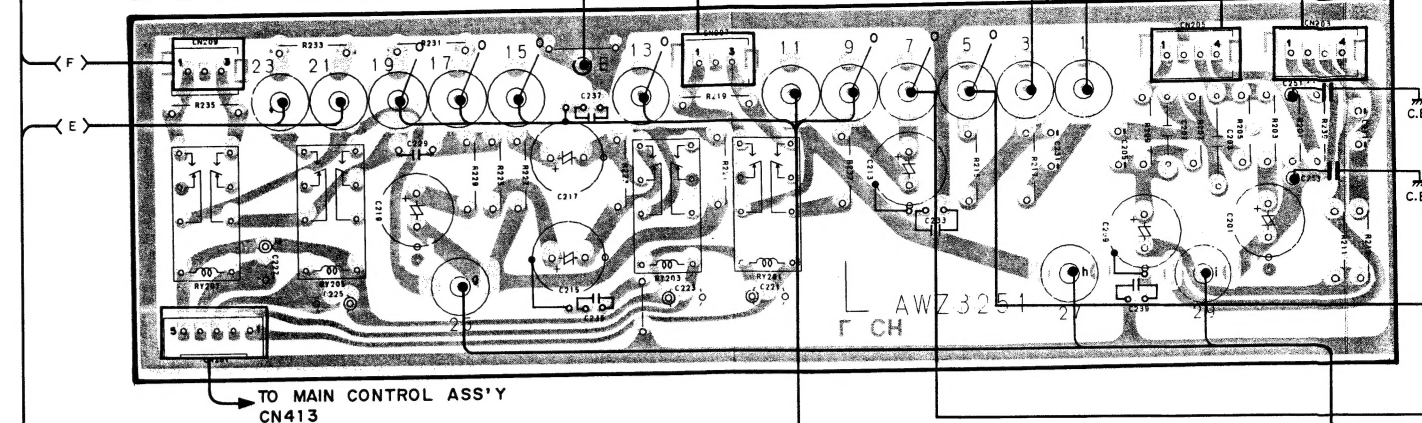
PIN JACK-L ASS'Y(AWZ3247)



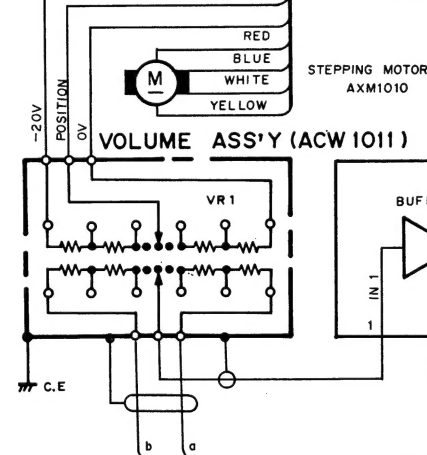
PIN JACK-R ASS'Y(AWZ3248)



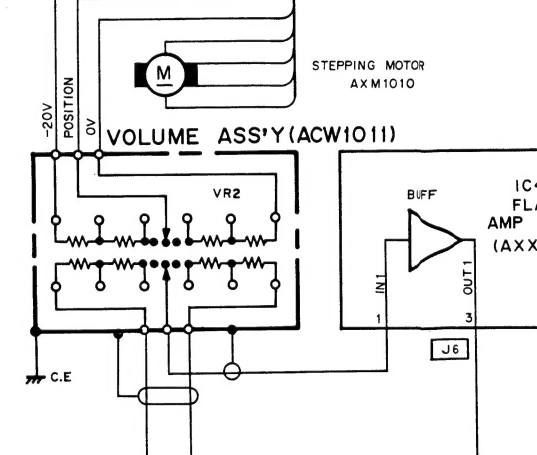
CR-L ASS'Y(AWZ3251)



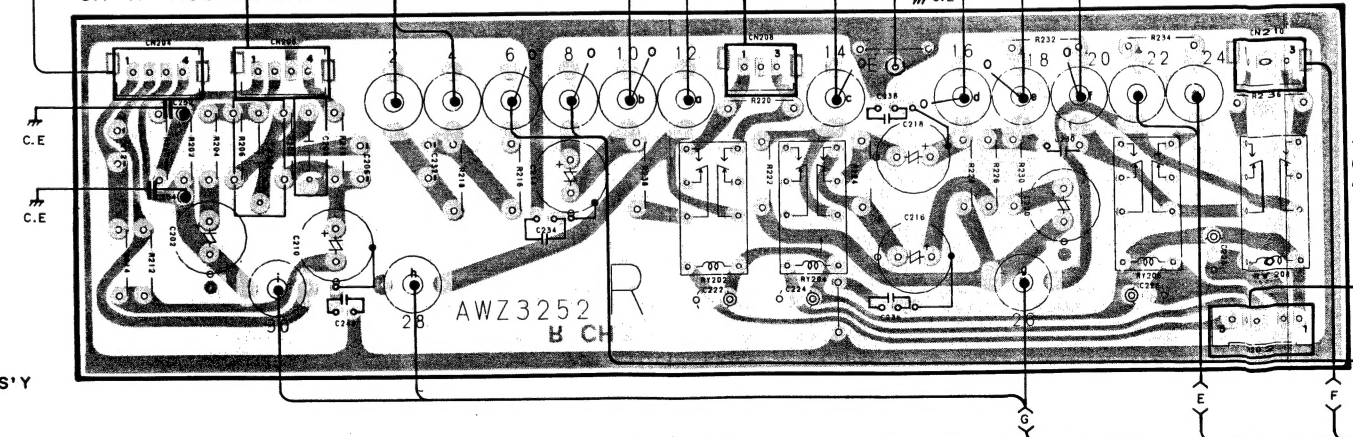
TO MAIN CONTROL ASS'Y CN407,409



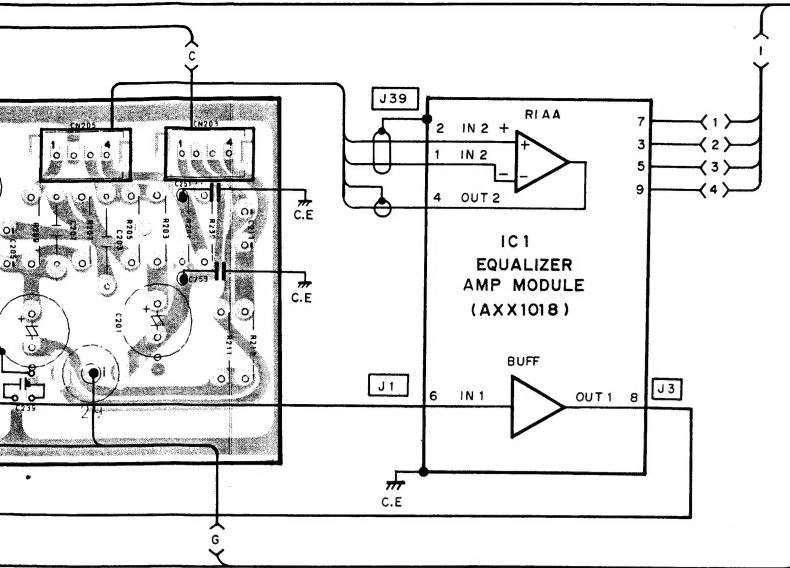
TO MAIN CONTR CN405,410



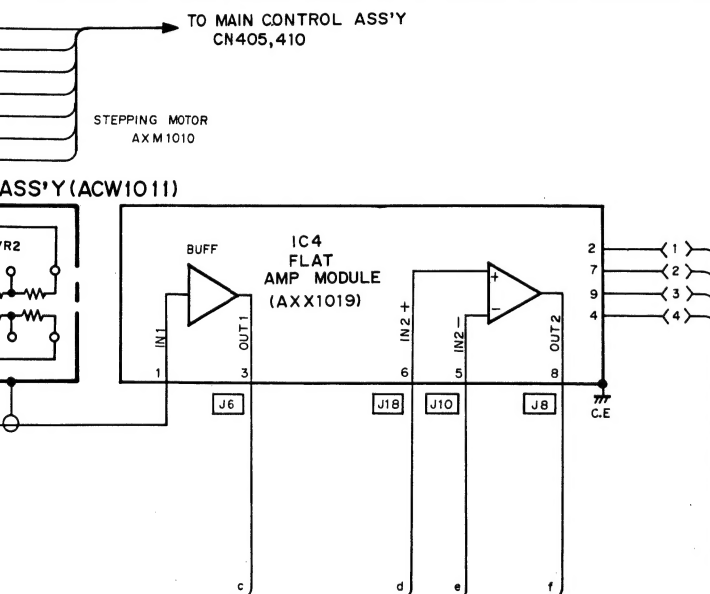
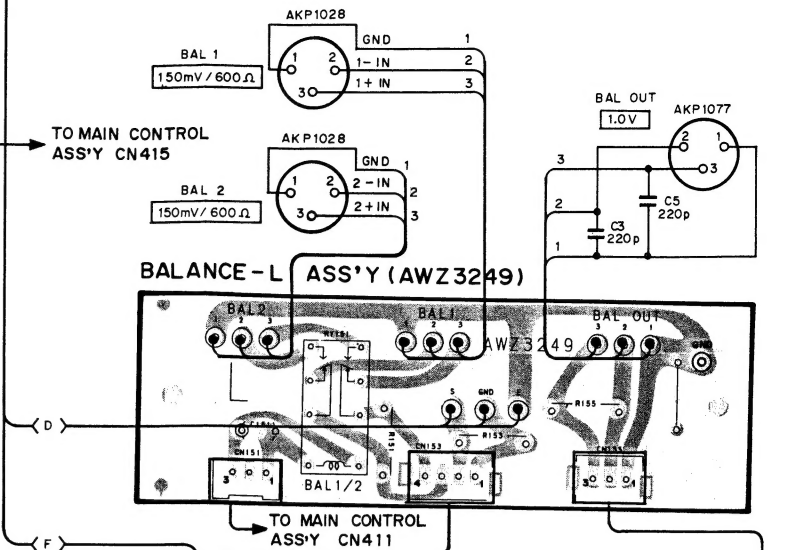
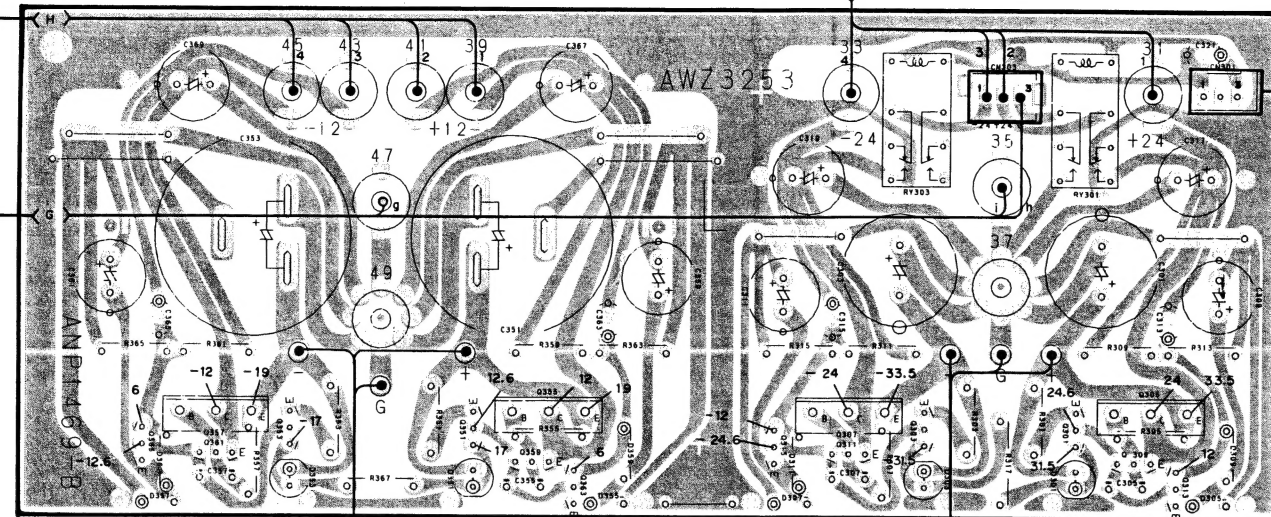
CR-R ASS'Y(AWZ3252)



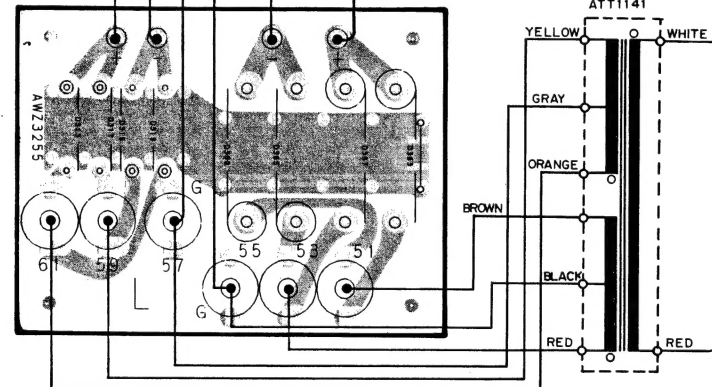




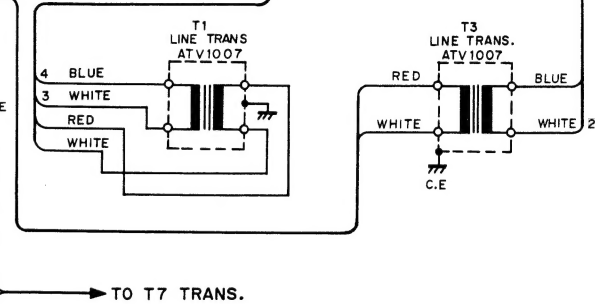
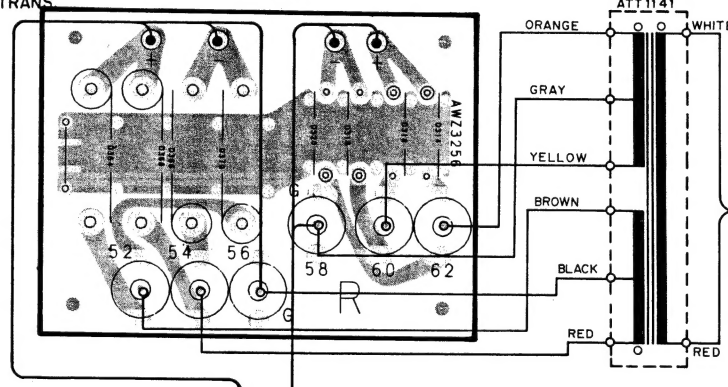
POWER SUPPLY-L ASS'Y (AWZ3253)



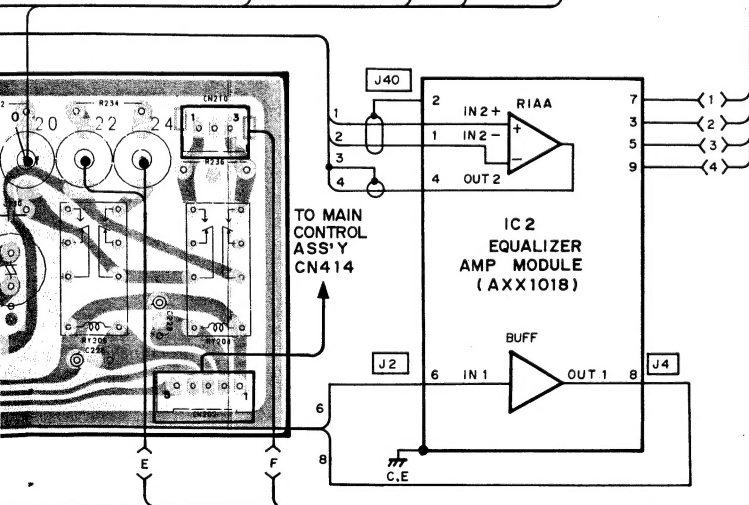
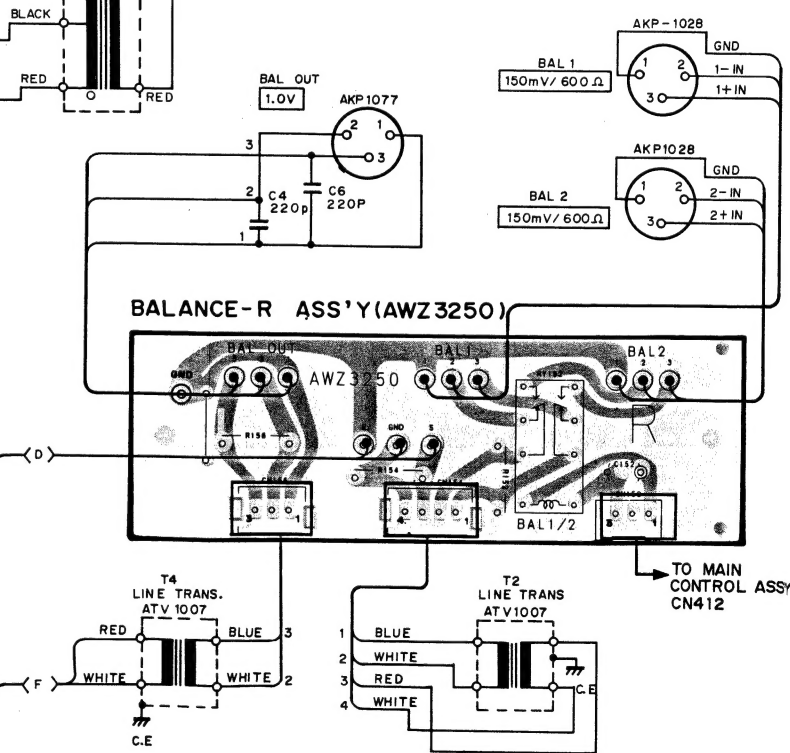
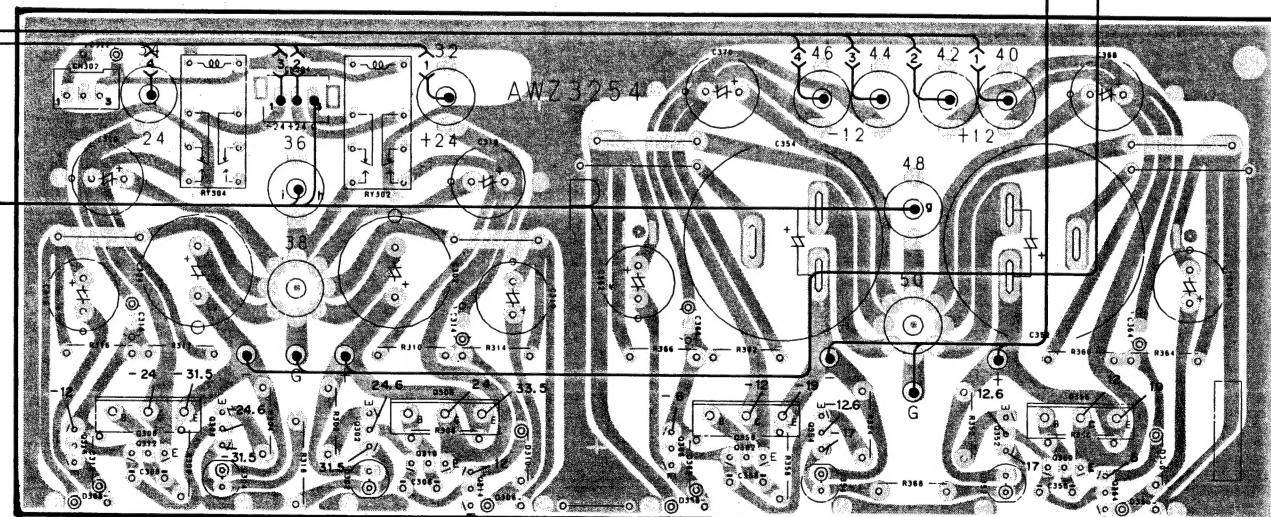
DIODE-L ASS'Y (AWZ3255)



TO T7 DIODE-R ASS'Y (AWZ3256)



POWER SUPPLY-R ASS'Y (AWZ3254)

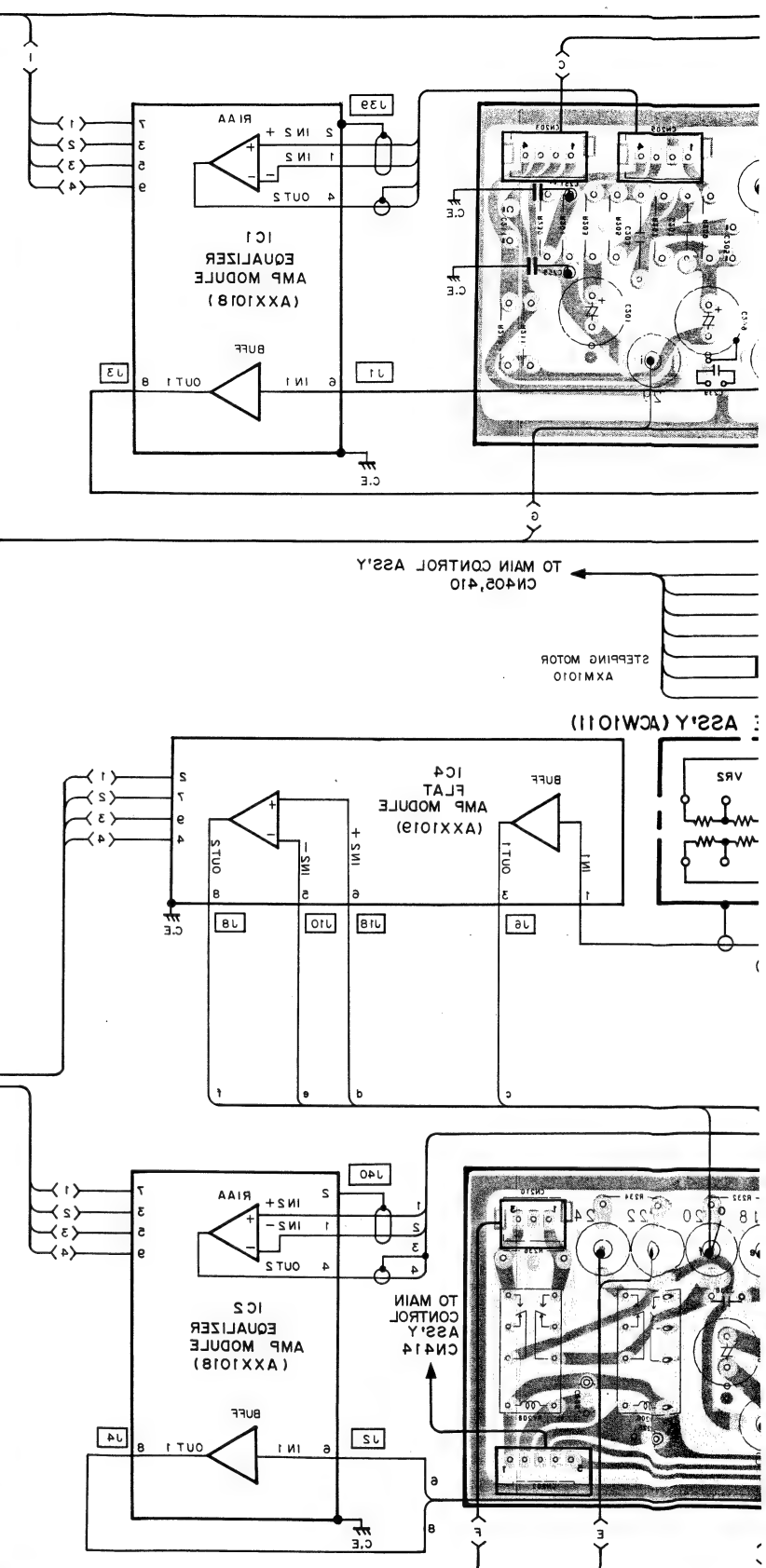
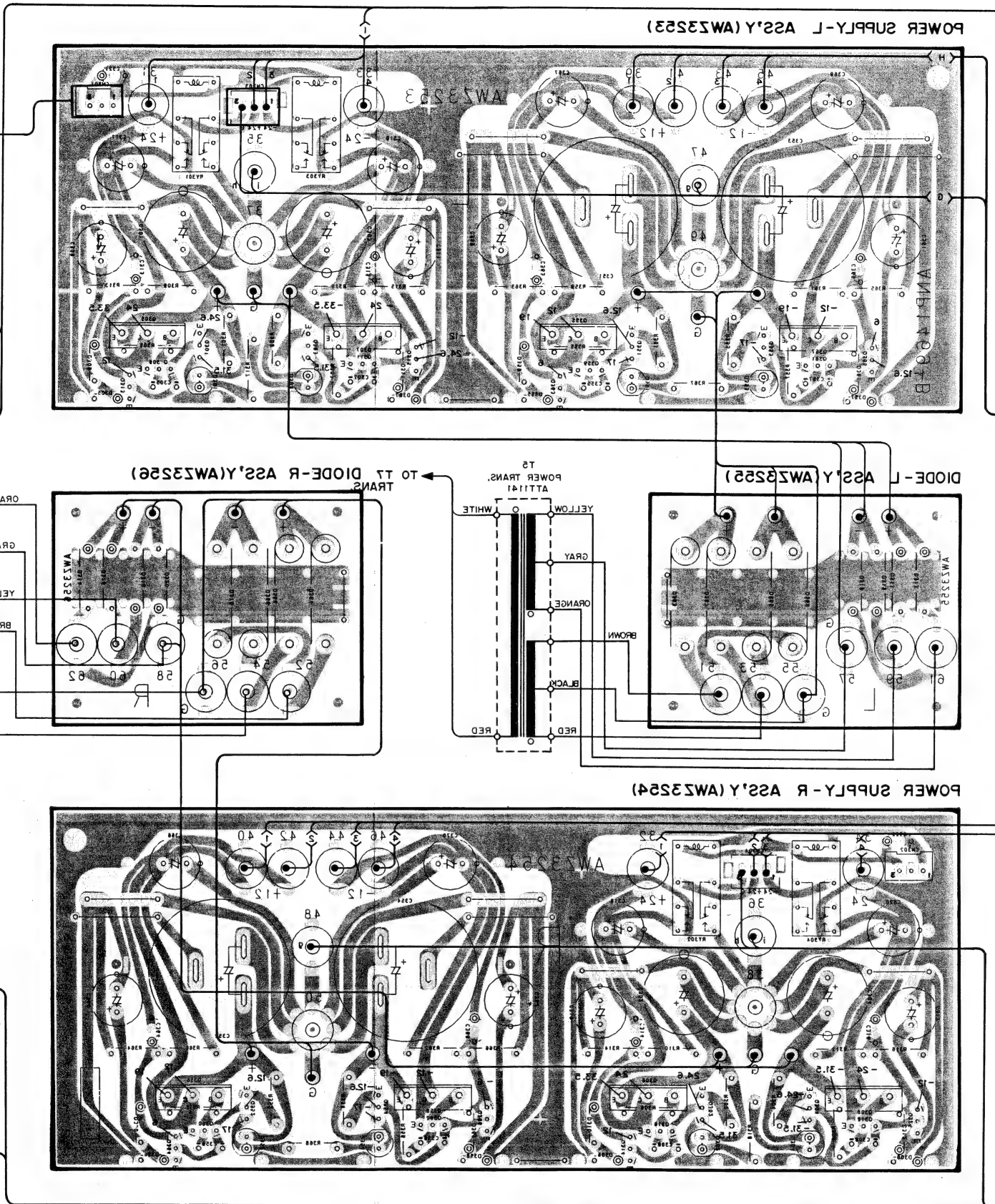
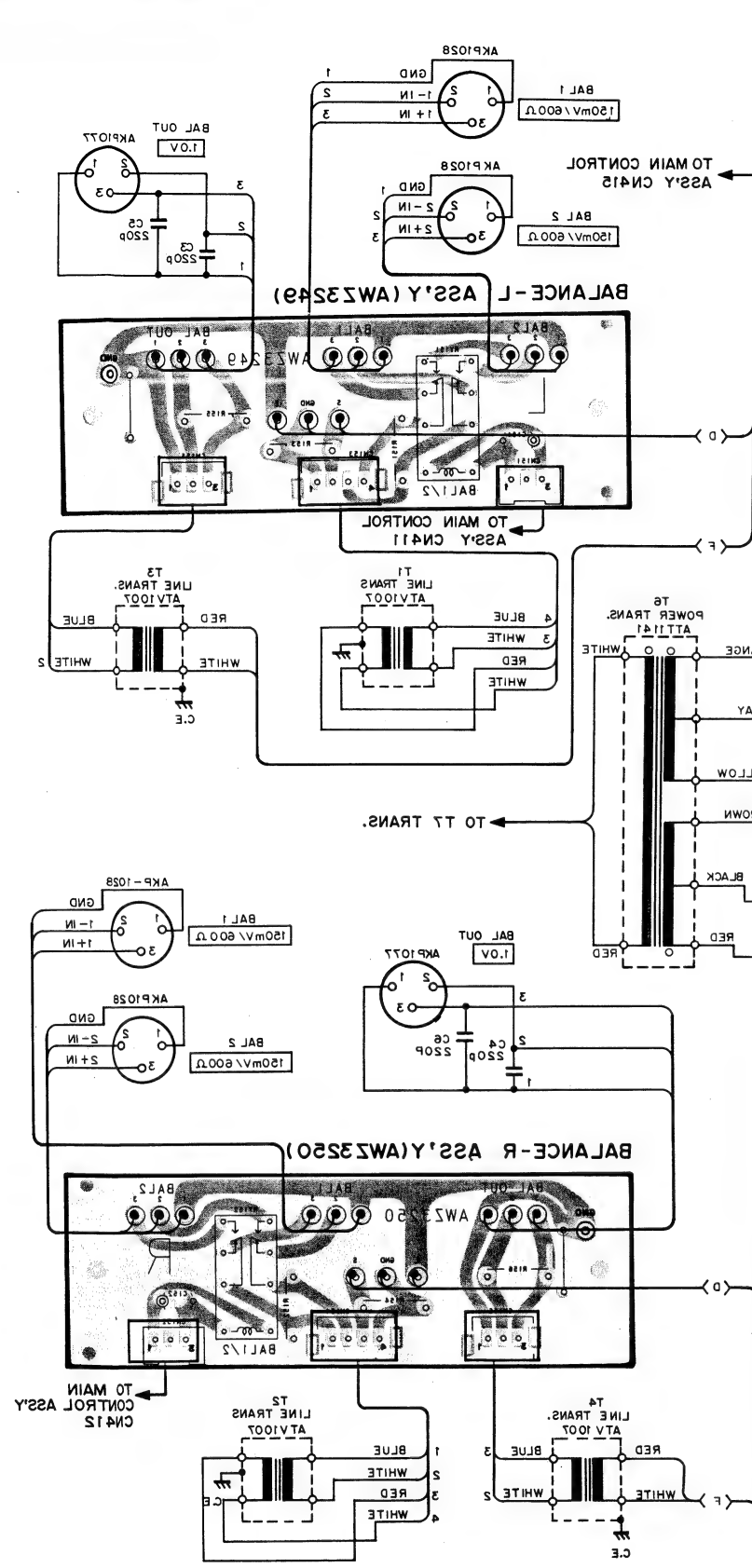




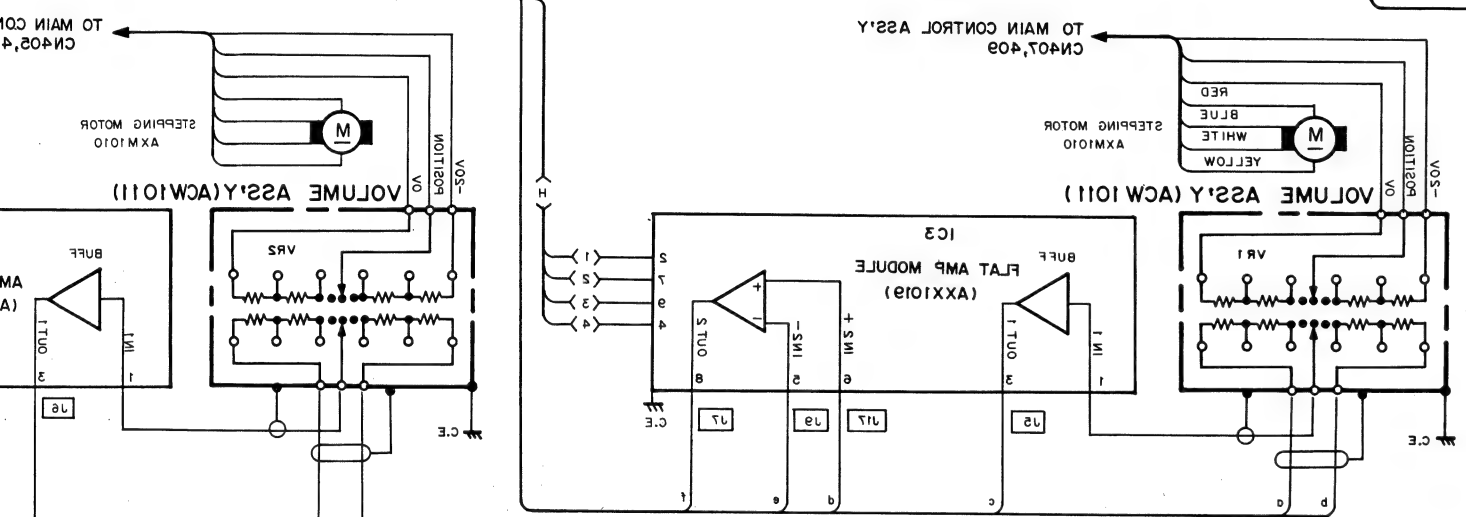
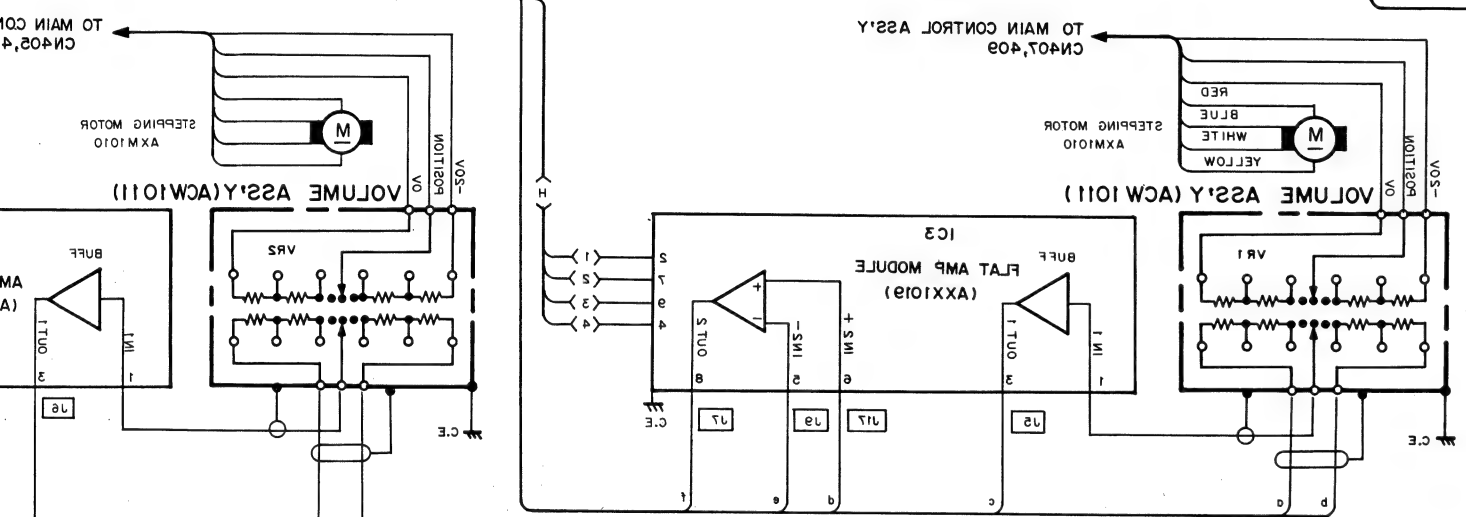
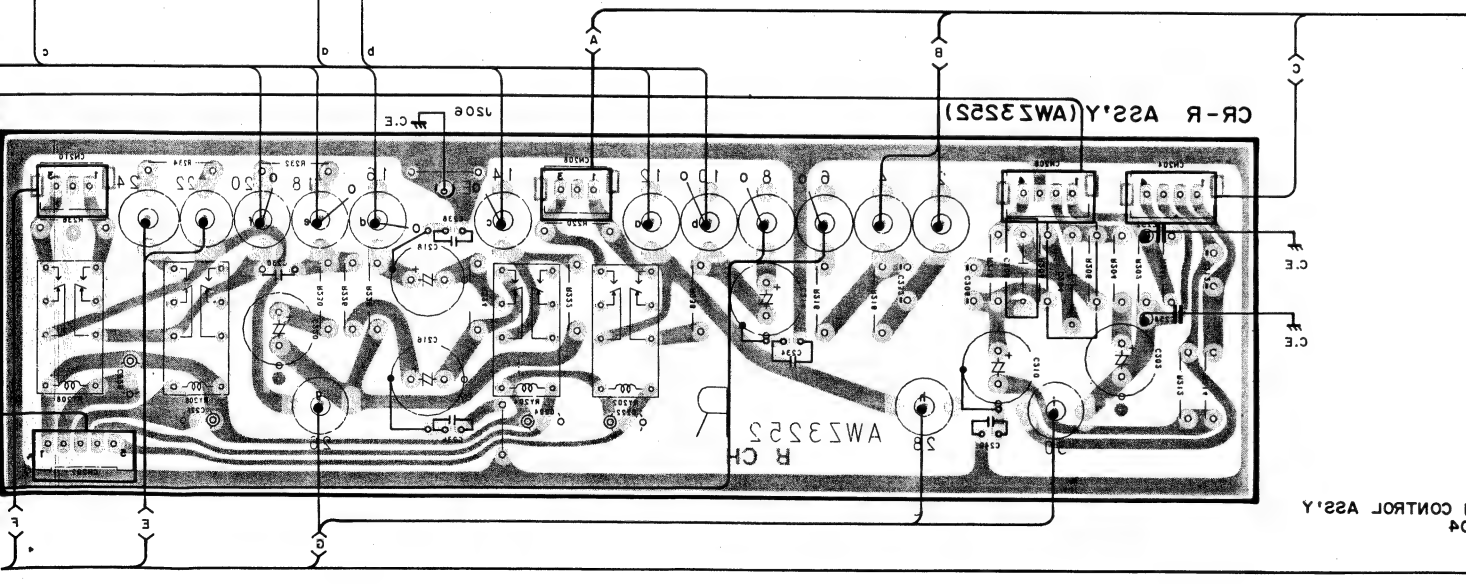
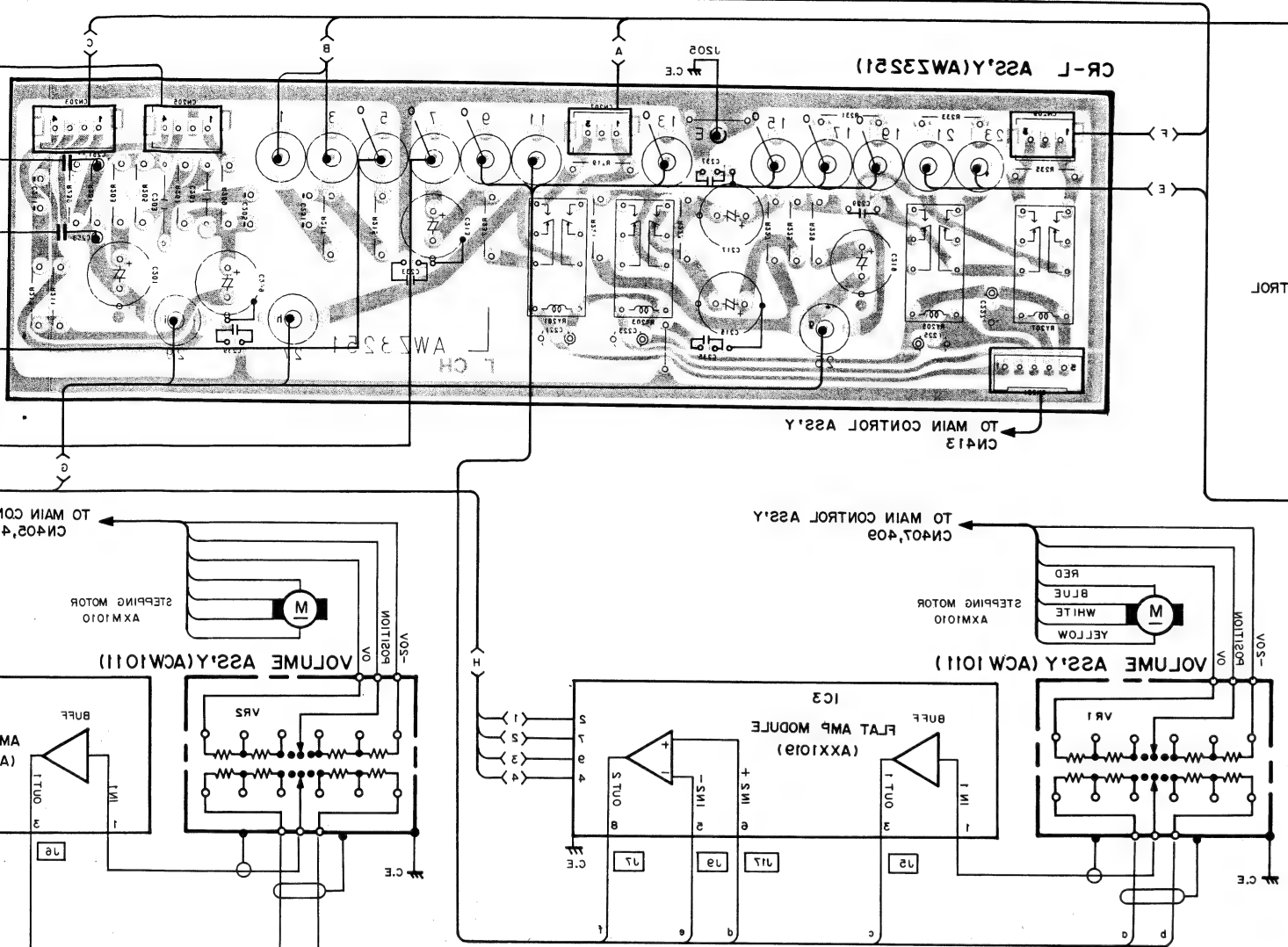
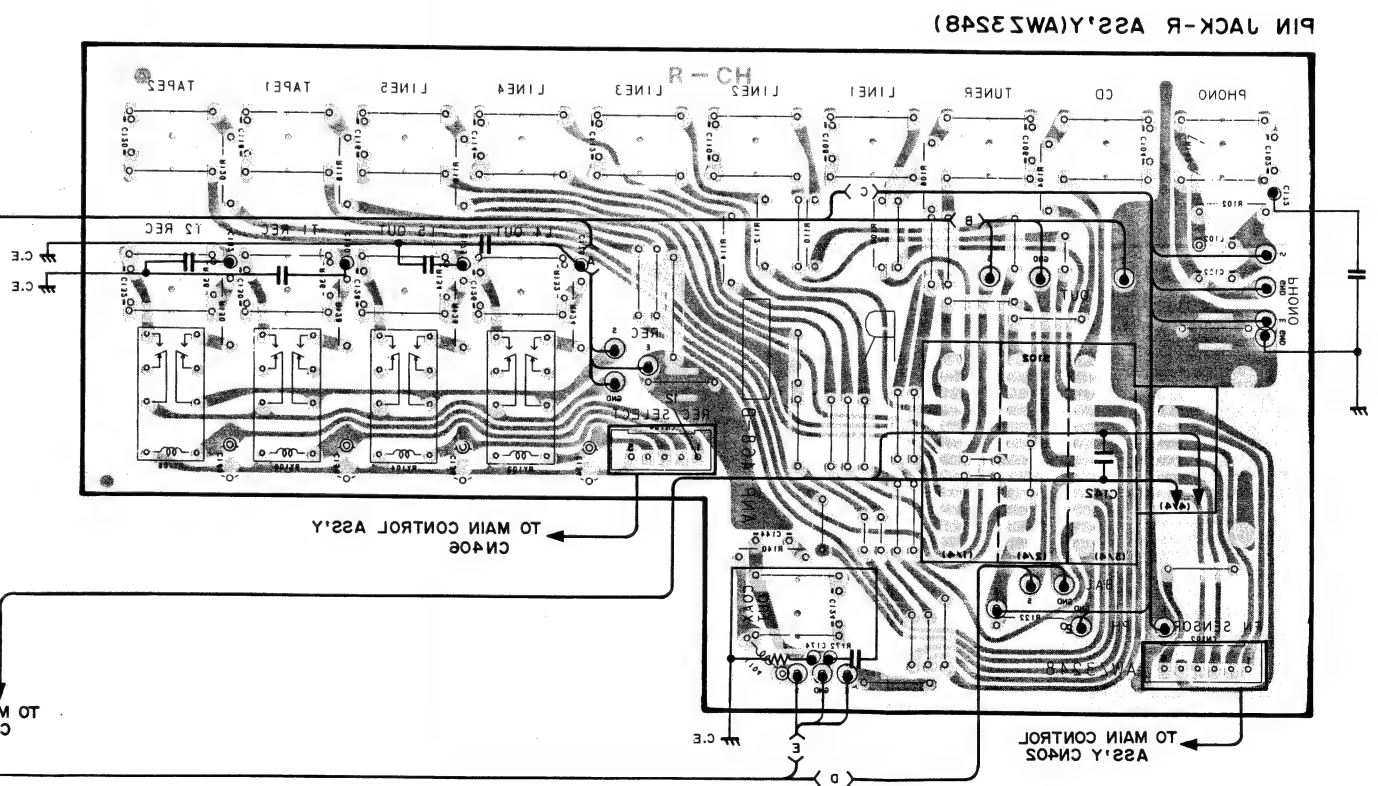
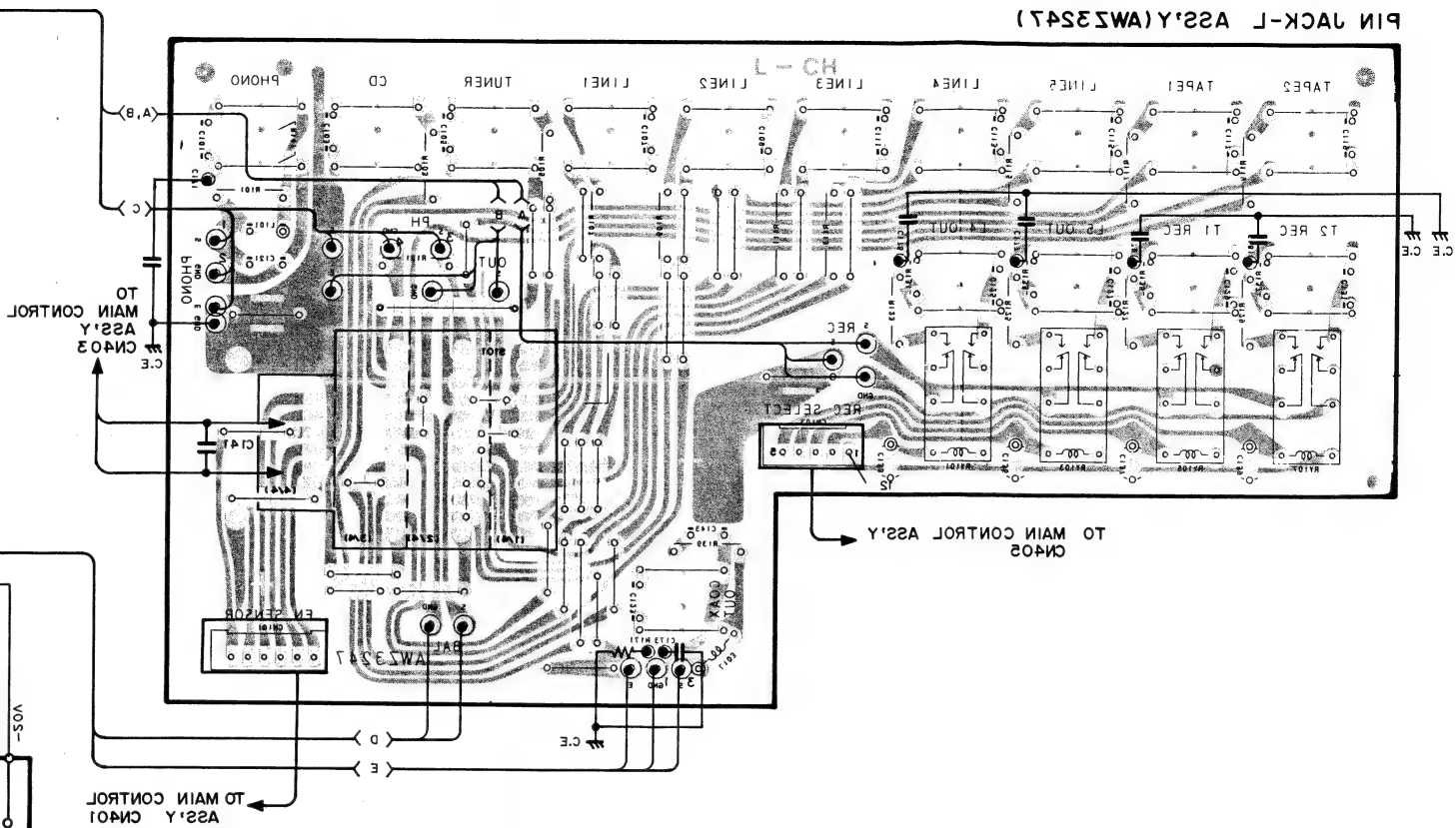
B

C

D

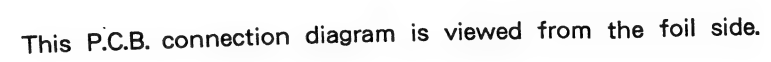


This P.C.B. connection diagram is viewed from the foil side.









NOTE

1. This P.C.B. connection diagram is viewed from the parts mounted side.

2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

A

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

B

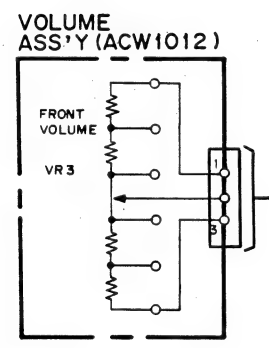
Others	
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with © (double circles) shows negative terminal.

4. The diode terminal marked with © (double circles) shows cathode side.

5. The transistor terminal to which E is affixed shows the emitter.

C



D

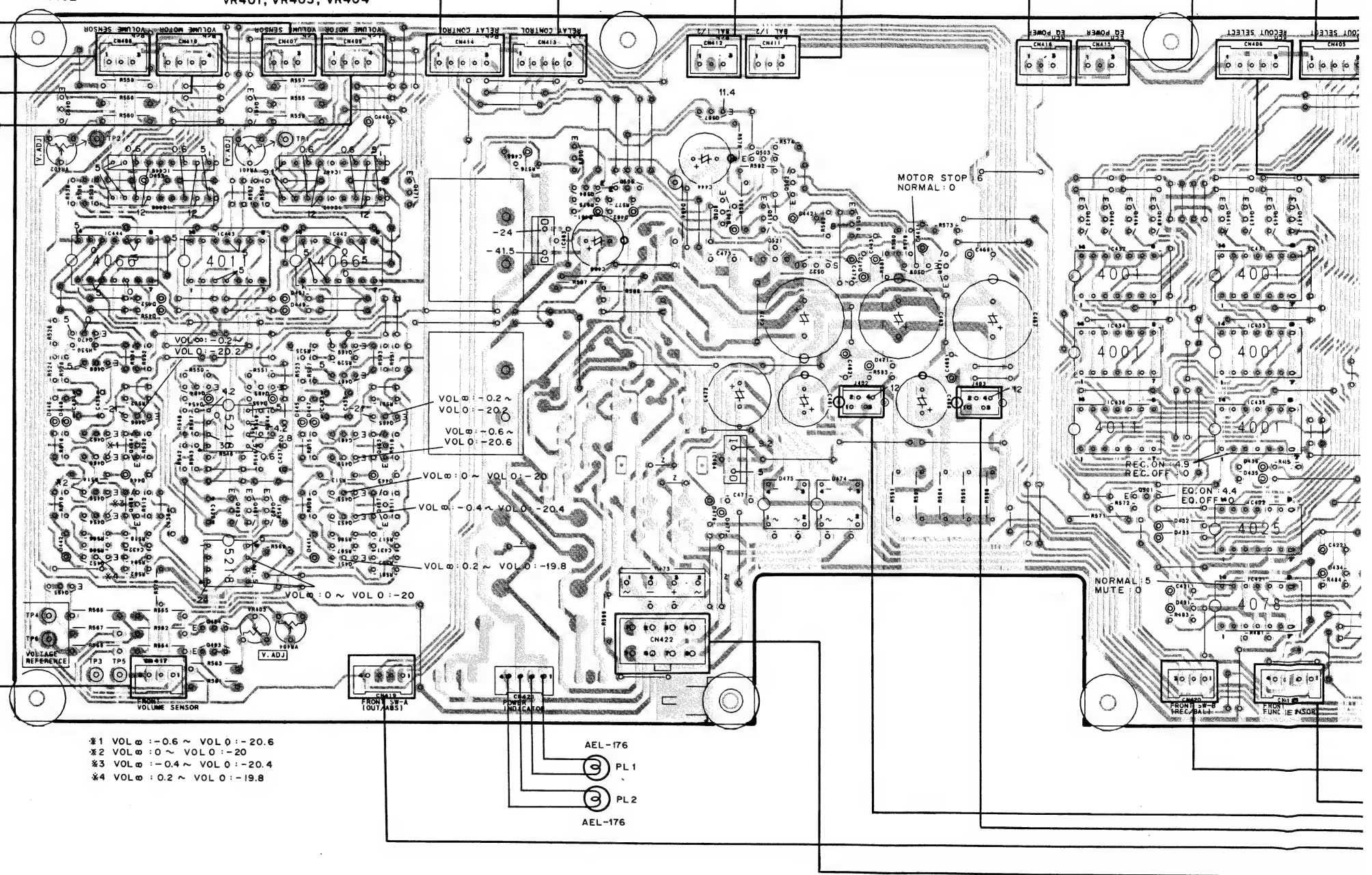
MAIN CONTROL ASS'Y (AWZ3257)

Q492 IC444 IC448 Q491 IC447  
Q470, Q468 IC446 IC443 IC445 Q471  
Q462 Q466  
Q460 Q464  
Q456  
Q454 Q458 IC441  
Q495, Q452 Q494 Q453 Q457  
Q493 Q451

VR402 VR401, VR403, VR404

TO VOLUME ASS'Y (Lch)  
TO VOLUME ASS'Y (Rch)  
TO STEPPING MOTOR (Rch)  
TO STEPPING MOTOR (Lch)

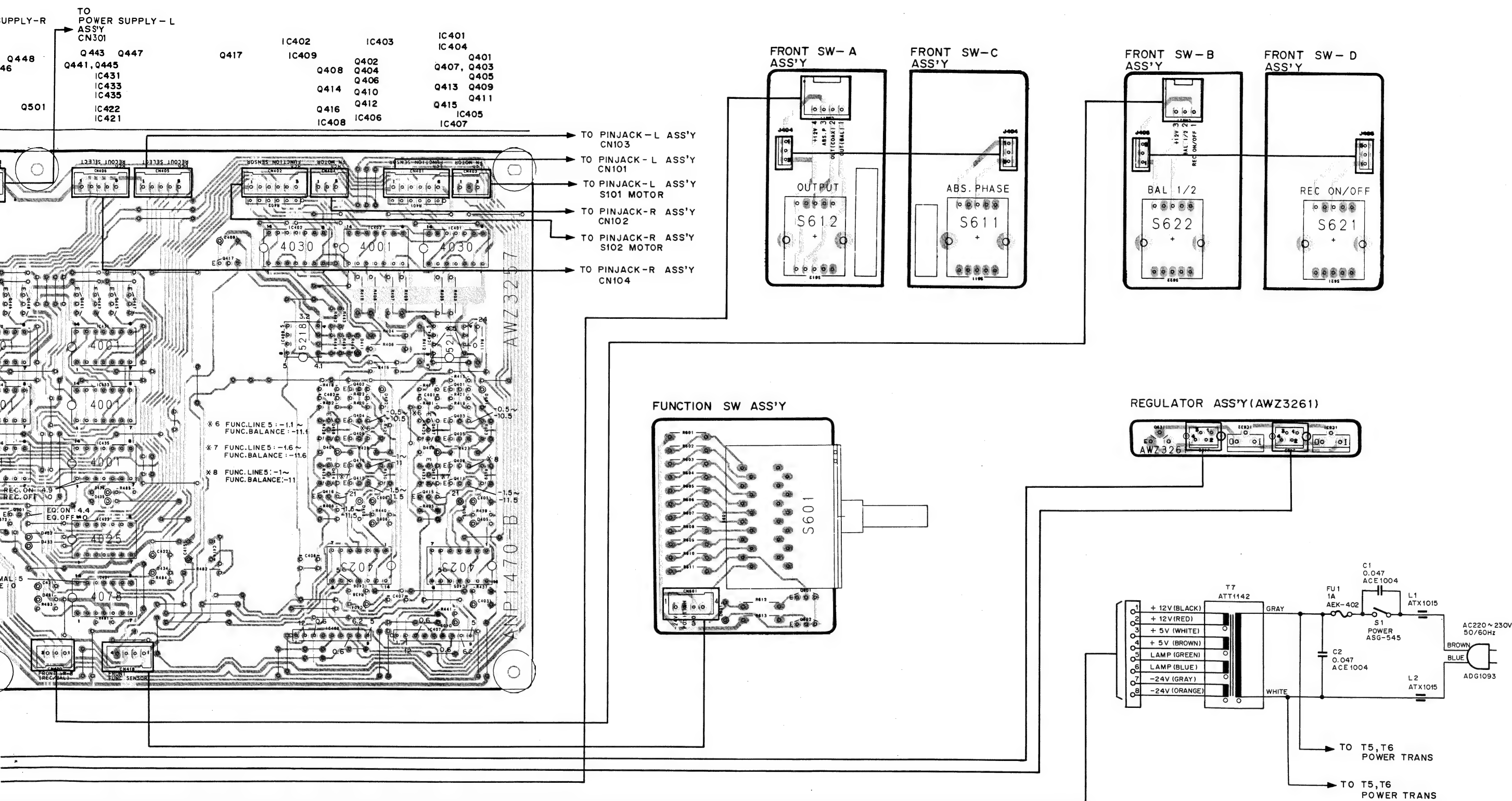
TO CR-R ASS'Y CN202 IC463 Q505 Q504 Q506 Q507 Q508 IC464  
TO CR-L ASS'Y CN201 Q503 Q511 Q502 Q521 Q522  
TO BALANCE-R ASS'Y CN152 Q510 Q509 Q431  
TO BALANCE-L ASS'Y CN151  
TO POWER SUPPLY-R ASS'Y CN302 Q444 Q448 Q442 Q446 Q443 Q447 Q441, Q445 IC432 IC433 IC435 IC422 IC421  
TO POWER SUPPLY-L ASS'Y CN301



\*1 VOL: -0.6 ~ VOL 0: -20.6  
\*2 VOL: 0 ~ VOL 0: -20  
\*3 VOL: -0.4 ~ VOL 0: -20.4  
\*4 VOL: 0.2 ~ VOL 0: -19.8

AEL-176  
PL1  
PL2  
AEL-176





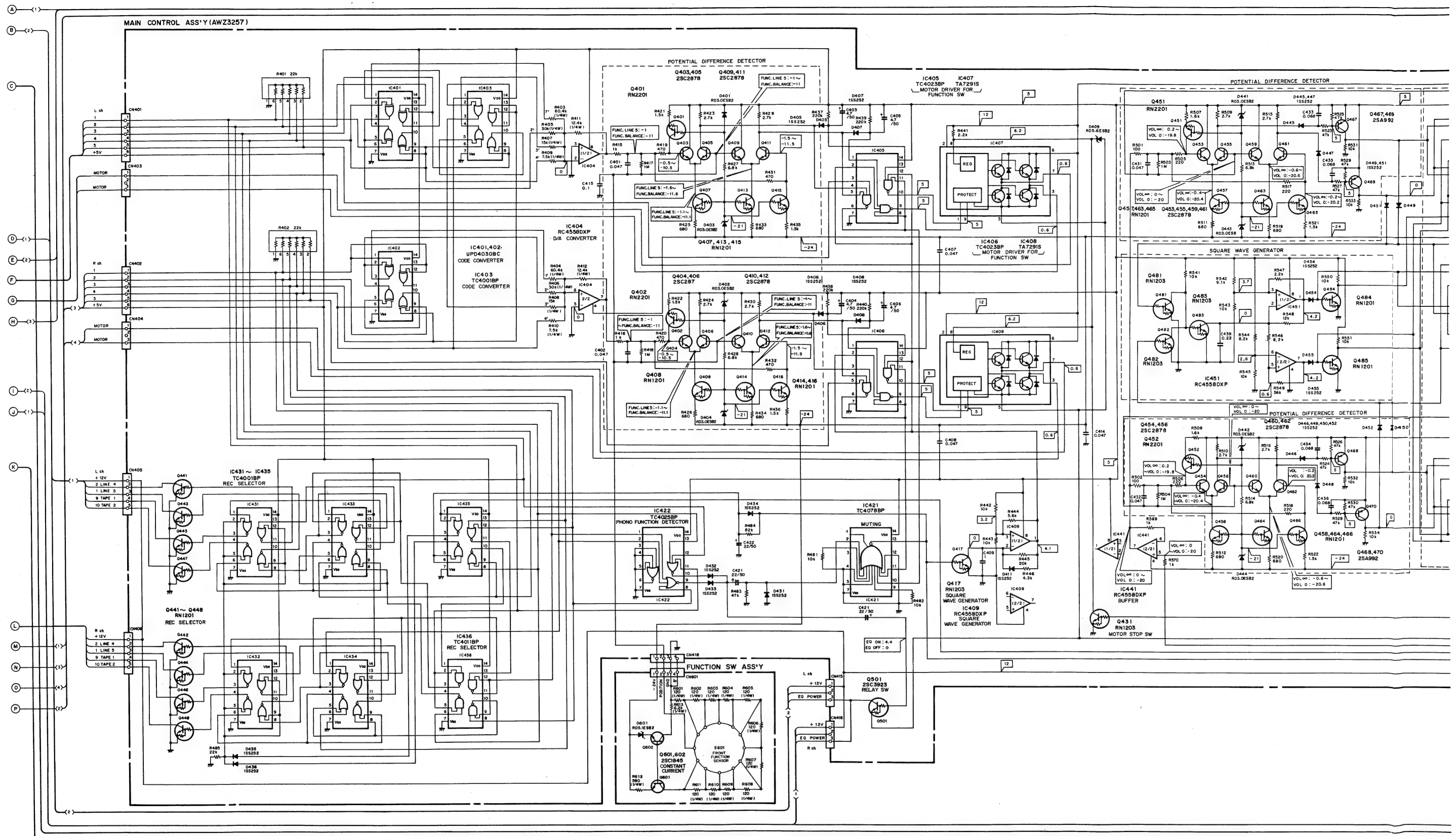


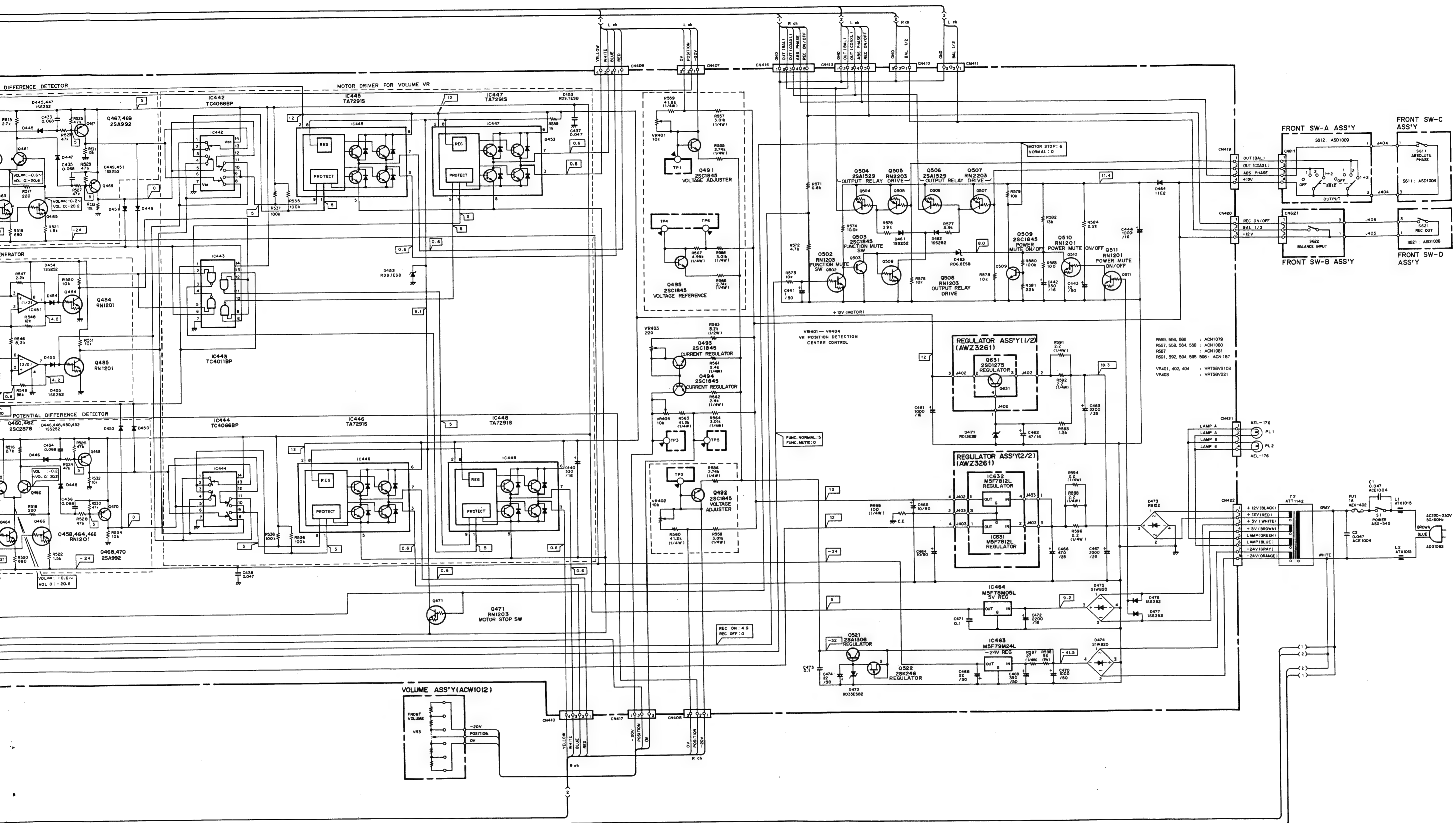
A

B

C

D





### 3. ELECTRICAL PARTS LIST

#### NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%)

560 $\Omega$	$56 \times 10^1$	561.....RD1/4PS	<span style="border: 1px solid black; padding: 0 2px;">5</span> <span style="border: 1px solid black; padding: 0 2px;">6</span> <span style="border: 1px solid black; padding: 0 2px;">1</span> J
47k $\Omega$	$47 \times 10^3$	473.....RD1/4PS	<span style="border: 1px solid black; padding: 0 2px;">4</span> <span style="border: 1px solid black; padding: 0 2px;">7</span> <span style="border: 1px solid black; padding: 0 2px;">3</span> J
0.5 $\Omega$	0R5.....	RN2H	<span style="border: 1px solid black; padding: 0 2px;">0</span> <span style="border: 1px solid black; padding: 0 2px;">R</span> <span style="border: 1px solid black; padding: 0 2px;">5</span> K
1 $\Omega$	010.....	RS1P	<span style="border: 1px solid black; padding: 0 2px;">0</span> <span style="border: 1px solid black; padding: 0 2px;">1</span> <span style="border: 1px solid black; padding: 0 2px;">0</span> K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k $\Omega$	$562 \times 10^1$	5621.....RN1/4SR	<span style="border: 1px solid black; padding: 0 2px;">5</span> <span style="border: 1px solid black; padding: 0 2px;">6</span> <span style="border: 1px solid black; padding: 0 2px;">2</span> <span style="border: 1px solid black; padding: 0 2px;">1</span> F
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#### Mark No. Description Part No.

#### PIN JACK -L ASS'Y (AWZ3247)

##### SWITCH

S101	SWITCH (FUNCTION)	ASD1011
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##### RELAIRES

RY101	RELAY (LINE 4 OUT)	ASR1018
RY103	RELAY (LINE 5 OUT)	ASR1018
RY105	RELAY (TAPE 1 REC)	ASR1018
RY107	RELAY (TAPE 2 REC)	ASR1018

##### COILS

L101	INDUCTOR (270 $\mu$ H)	ATH1010
L103	COIL (0.47 $\mu$ H)	ATH1052

##### CAPACITORS

C101	MICA CAPACITOR	CMA220J500
C103	MICA CAPACITOR	CMA271J500
C105	CERAMIC CAPACITOR	CCDSL271K500
C107	CERAMIC CAPACITOR	CCDSL271K500
C109	CERAMIC CAPACITOR	CCDSL271K500

C111	CERAMIC CAPACITOR	CCDSL271K500
C113	CERAMIC CAPACITOR	CCDSL271K500
C115	CERAMIC CAPACITOR	CCDSL271K500
C117	CERAMIC CAPACITOR	CCDSL271K500
C119	CERAMIC CAPACITOR	CCDSL271K500

C121	MICA CAPACITOR	CMA221J500
C123	MICA CAPACITOR	CMA301J500
C125	CERAMIC CAPACITOR	CKDYB391K500
C127	CERAMIC CAPACITOR	CKDYB391K500
C129	CERAMIC CAPACITOR	CKDYB391K500

C131	CERAMIC CAPACITOR	CKDYB391K500
C133	ELECTR. CAPACITOR	CEAS100M50
C135	ELECTR. CAPACITOR	CEAS100M50
C137	ELECTR. CAPACITOR	CEAS100M50
C139	ELECTR. CAPACITOR	CEAS100M50

C141	CERAMIC CAPACITOR	CKDYB103K50
C143	AUDIO FILM CAPACITOR	CFTXA103J50

Mark	No.	Description	Part No.
	C171	CERAMIC CAPACITOR	CKDYB103K50
	C173	CERAMIC CAPACITOR	CCDSL56QJ50
	C175	CERAMIC CAPACITOR	CKDYB682K50

C177	CERAMIC CAPACITOR	CKDYB682K50
C179	CERAMIC CAPACITOR	CKDYB682K50
C181	CERAMIC CAPACITOR	CKDYB682K50

##### RESISTORS

R131	CARBON FILM RESISTOR	RDR1/6PU103J
R133	CARBON FILM RESISTOR	RDR1/6PU103J
R135	CARBON FILM RESISTOR	RDR1/6PU103J
R137	CARBON FILM RESISTOR	RDR1/6PU103J
R141	CARBON FILM RESISTOR	RDR1/6PU102J
	OTHER RESISTORS	RDR1/4PM□□□J

##### OTHER

CN PIN JACK 1-P (OUTPUT 1)	AKB1162
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#### PIN JACK -R ASS'Y (AWZ3248)

##### SWITCH

S102	SWITCH (FUNCTION)	ASD1011
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##### RELAIRES

RY102	RELAY (LINE 4 OUT)	ASR1018
RY104	RELAY (LINE 5 OUT)	ASR1018
RY106	RELAY (TAPE 1 REC)	ASR1018
RY108	RELAY (TAPE 2 REC)	ASR1018

##### COILS

L102	INDUCTOR (270 $\mu$ H)	ATH1010
L104	COIL (0.47 $\mu$ H)	ATH1052

##### CAPACITORS

C102	MICA CAPACITOR	CMA220J500
C104	MICA CAPACITOR	CMA271J500
C106	CERAMIC CAPACITOR	CCDSL271K500
C108	CERAMIC CAPACITOR	CCDSL271K500
C110	CERAMIC CAPACITOR	CCDSL271K500
C112	CERAMIC CAPACITOR	CCDSL271K500

Mark	No. Description	Part No.
	C114 CERAMIC CAPACITOR	CCDSL271K500
	C116 CERAMIC CAPACITOR	CCDSL271K500
	C118 CERAMIC CAPACITOR	CCDSL271K500
	C120 CERAMIC CAPACITOR	CCDSL271K500
	C122 MICA CAPACITOR	CMA221J500
	C124 MICA CAPACITOR	CMA301J500
	C126 CERAMIC CAPACITOR	CKDYB391K500
	C128 CERAMIC CAPACITOR	CKDYB391K500
	C130 CERAMIC CAPACITOR	CKDYB391K500
	C132 CERAMIC CAPACITOR	CKDYB391K500
	C134 ELECTR.CAPACITOR	CEAS100M50
	C136 ELECTR.CAPACITOR	CEAS100M50
	C138 ELECTR.CAPACITOR	CEAS100M50
	C140 ELECTR.CAPACITOR	CEAS100M50
	C142 CERAMIC CAPACITOR	CKDYB103K50
	C144 AUDIO FILM CAPACITOR	CFTXA103J50
	C172 CERAMIC CAPACITOR	CKDYB103K50
	C174 CERAMIC CAPACITOR	CCDSL560J50
	C176 CERAMIC CAPACITOR	CKDYB682K50
	C178 CERAMIC CAPACITOR	CKDYB682K50
	C180 CERAMIC CAPACITOR	CKDYB682K50
	C182 CERAMIC CAPACITOR	CKDYB682K50

#### RESISTORS

R132	CARBON FILM RESISTOR	RDR1/6PU103J
R134	CARBON FILM RESISTOR	RDR1/6PU103J
R136	CARBON FILM RESISTOR	RDR1/6PU103J
R138	CARBON FILM RESISTOR	RDR1/6PU103J
R142	CARBON FILM RESISTOR	RDR1/6PU102J
	OTHER RESISTORS	RDR1/4PM□□□J

#### OTHER

CN PIN JACK 1-P (OUTPUT 1)	AKB1162
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### BALANCE -L ASS'Y (AWZ3249)

#### RELAY

RY151	RELAY (BALANCE IN 1/2)	ASR1018
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#### CAPACITOR

C151	ELECTR.CAPACITOR	CEAS100M50
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#### RESISTORS

ALL RESISTORS	RDR1/4PM□□□J
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### BALANCE -R ASS'Y (AWZ3250)

#### RELAY

RY152	RELAY (BALANCE IN 1/2)	ASR1018
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#### CAPACITOR

C152	ELECTR.CAPACITOR	CEAS100M50
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#### RESISTORS

ALL RESISTORS	RDR1/4PM□□□J
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Mark	No. Description	Part No.
<b>CR -L ASS'Y (AWZ3251)</b>		
<b>RELAIIES</b>		
RY201	RELAY (REC ON/OFF)	ASR1018
RY203	RELAY (ABSOLUTE PHASE 0/180)	ASR1018
RY205	RELAY (OUTPUT ON/OFF)	ASR1018
RY207	RELAY (OUTPUT 2)	ASR1018

#### CAPACITORS

C201	ELECTR.CAPACITOR (1000 $\mu$ F/25V)	ACH1183
C203	CAPACITOR (0.12 $\mu$ F)	ACE-095
C205	CAPACITOR	CQSXA122J160
C207	CAPACITOR (0.033 $\mu$ F)	ACE-094
C209	ELECTR.CAPACITOR (22 $\mu$ F/50V NP)	ACH1182
C211	CAPACITOR	CQMXA123J100
C213	ELECTR.CAPACITOR (22 $\mu$ F/50V NP)	ACH1182
C215	ELECTR.CAPACITOR (220 $\mu$ F/25V NP)	ACH1184
C217	ELECTR.CAPACITOR (220 $\mu$ F/25V NP)	ACH1184
C219	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1178
C221	ELECTR.CAPACITOR	CEAS100M50
C223	ELECTR.CAPACITOR	CEAS100M50
C225	ELECTR.CAPACITOR	CEAS100M50
C227	ELECTR.CAPACITOR	CEAS100M50
C229	MICA CAPACITOR	CMA101J500
C231	MICA CAPACITOR	CMA820J500
C233	CERAMIC CAPACITOR	CCDSL101J50
C235	CERAMIC CAPACITOR	CKDYB102K50
C237	CERAMIC CAPACITOR	CCDSL101J50
C239	CERAMIC CAPACITOR	CCDSL101J50
C251	MICA CAPACITOR	CMA820J500
C253	CERAMIC CAPACITOR	CKDYB681K50

#### RESISTORS

ALL RESISTORS	RDR1/4PM□□□J
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#### OTHER

STAR TERMINAL B	AKE1028
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### CR -R ASS'Y (AWZ3252)

#### RELAIIES

RY202	RELAY (REC ON/OFF)	ASR1018
RY204	RELAY (ABSOLUTE PHASE 0/180)	ASR1018
RY206	RELAY (OUTPUT ON/OFF)	ASR1018
RY208	RELAY (OUTPUT 2)	ASR1018

Mark	No. Description	Part No.
<b>CAPACITORS</b>		
C202	ELECTR.CAPACITOR (100 $\mu$ F/25V)	ACH1183
C204	CAPACITOR (0.12 $\mu$ F)	ACE-095
C206	CAPACITOR	CQSXA122J160
C208	CAPACITOR (0.033 $\mu$ F)	ACE-094
C210	ELECTR.CAPACITOR (22 $\mu$ F/50V NP)	ACH1182
C212	CAPACITOR	CQMXA123J100
C214	ELECTR.CAPACITOR (22 $\mu$ F/50V NP)	ACH1182
C216	ELECTR.CAPACITOR (220 $\mu$ F/25V NP)	ACH1184
C218	ELECTR.CAPACITOR (220 $\mu$ F/25V NP)	ACH1184
C220	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1178
C222	ELECTR.CAPACITOR	CEAS100M50
C224	ELECTR.CAPACITOR	CEAS100M50
C226	ELECTR.CAPACITOR	CEAS100M50
C228	ELECTR.CAPACITOR	CEAS100M50
C230	MICA CAPACITOR	CMA101J500
C232	MICA CAPACITOR	CMA820J500
C234	CERAMIC CAPACITOR	CKDYB102K50
C236	CERAMIC CAPACITOR	CCDSL101J50
C238	CERAMIC CAPACITOR	CKDYB102K50
C240	CERAMIC CAPACITOR	CKDYB102K50
C252	MICA CAPACITOR	CMA820J500
C254	CERAMIC CAPACITOR	CKDYB681K50
<b>RESISTORS</b>		
	ALL RESISTORS	RDR1/4PM□□□J
<b>OTHER</b>		
	STAR TERMINAL B	AKE1028
<b>POWER SUPPLY -L ASS'Y (AWZ3253)</b>		
<b>SEMICONDUCTORS</b>		
Q301	TRANSISTOR	2SA970
Q303	TRANSISTOR	2SC2240
Q305	TRANSISTOR	2SA1263N
Q307	TRANSISTOR	2SC3180N
Q309	TRANSISTOR	2SC2240
Q311	TRANSISTOR	2SA970
Q313	TRANSISTOR	2SC2240
Q315	TRANSISTOR	2SA970
Q351	TRANSISTOR	2SA970
Q353	TRANSISTOR	2SC2240
Q355	TRANSISTOR	2SA1263N
Q357	TRANSISTOR	2SC3180N
Q359	TRANSISTOR	2SC2240
Q361	TRANSISTOR	2SA970
Q363	TRANSISTOR	2SC2240
Q365	TRANSISTOR	2SA970
D301	LED	AEL1096

Mark	No. Description	Part No.
D303	LED	AEL1096
D305	ZENER DIODE	RD11ESB
D307	ZENER DIODE	RD11ESB
D309	DIODE	11E2
D311	DIODE	11E2
D351	LED	AEL1096
D353	LED	AEL1096
D355	ZENER DIODE	RD5.6ESB
D357	ZENER DIODE	RD5.6ESB
D359	DIODE	11E2
D361	DIODE	11E2
<b>RELAYS</b>		
RY301	RELAY	ASR1018
RY303	RELAY	ASR1018
<b>CAPACITORS</b>		
C301	ELECTR.CAPACITOR (2200 $\mu$ F/42V)	ACH1174
C303	ELECTR.CAPACITOR (2200 $\mu$ F/42V)	ACH1175
C305	MICA CAPACITOR	CMA151J500
C307	MICA CAPACITOR	CMA151J500
C309	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1173
C311	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1179
C313	ELECTR.CAPACITOR	CEEA100M25
C315	ELECTR.CAPACITOR	CEEA100M25
C317	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1173
C319	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1179
C321	ELECTR.CAPACITOR	CEAS100M50
C351	ELECTR.CAPACITOR (6800 $\mu$ F/50V)	ACH1172
C353	ELECTR.CAPACITOR (6800 $\mu$ F/50V)	ACH1173
C355	MICA CAPACITOR	CMA151J500
C357	MICA CAPACITOR	CMA151J500
C359	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1178
C361	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1179
C363	ELECTR.CAPACITOR	CEEA100M25
C365	ELECTR.CAPACITOR	CEEA100M25
C367	ELECTR.CAPACITOR (470 $\mu$ F/50V)	ACH1176
C369	ELECTR.CAPACITOR (470 $\mu$ F/50V)	ACH1177
<b>RESISTORS</b>		
R317	CARBON FILM RESISTOR	RDR1/4PM153J
	OTHER RESISTORS	RDR1/4PM□□□J
<b>OTHERS</b>		
	MICA SHEET	AEC1113
	STAR TERMINAL A	AKE1017
	STAR TERMINAL B	AKE1018

Mark	No. Description	Part No.
	SCREW	PMB30P100FCU

**POWER SUPPLY -R ASS'Y (AWZ3254)**

#### SEMICONDUCTORS

Q302	TRANSISTOR	2SA970
Q304	TRANSISTOR	2SC2240
Q306	TRANSISTOR	2SA1263N
Q308	TRANSISTOR	2SC3180N
Q310	TRANSISTOR	2SC2240

Q312	TRANSISTOR	2SA970
Q314	TRANSISTOR	2SC2240
Q316	TRANSISTOR	2SA970
Q352	TRANSISTOR	2SA970
Q354	TRANSISTOR	2SC2240

Q356	TRANSISTOR	2SA1263N
Q358	TRANSISTOR	2SC3180N
Q360	TRANSISTOR	2SC2240
Q362	TRANSISTOR	2SA970
Q364	TRANSISTOR	2SC2240

Q366	TRANSISTOR	2SA970
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D302	LED	AEL1096
D304	LED	AEL1096
D306	ZENER DIODE	RD11ESB
D308	ZENER DIODE	RD11ESB
D310	DIODE	11E2

D312	DIODE	11E2
D352	LED	AEL1096
D354	LED	AEL1096
D356	ZENER DIODE	RD5.6ESB
D358	ZENER DIODE	RD5.6ESB

D360	DIODE	11E2
D362	DIODE	11E2

#### RELAYS

RY302	RELAY	ASR1018
RY304	RELAY	ASR1018

#### CAPACITORS

C302	ELECTR.CAPACITOR (2200 $\mu$ F/42V)	ACH1174
C304	ELECTR.CAPACITOR (2200 $\mu$ F/42V)	ACH1175
C306	MICA CAPACITOR	CMA151J500
C308	MICA CAPACITOR	CMA151J500
C310	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1178

C312	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1179
C314	ELECTR.CAPACITOR	CEEA100M25
C316	ELECTR.CAPACITOR	CEEA100M25
C318	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1178

C320	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1179
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C322	ELECTR.CAPACITOR	CEAS100M50
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Mark	No. Description	Part No.
C352	ELECTR.CAPACITOR (6800 $\mu$ F/50V)	ACH1172
C354	ELECTR.CAPACITOR (6800 $\mu$ F/50V)	ACH1173
C356	MICA CAPACITOR	CMA151J500
C358	MICA CAPACITOR	CMA151J500
C360	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1178
C362	ELECTR.CAPACITOR (330 $\mu$ F/50V)	ACH1179
C364	ELECTR.CAPACITOR	CEEA100M25
C366	ELECTR.CAPACITOR	CEEA100M25
C368	ELECTR.CAPACITOR (470 $\mu$ F/50V)	ACH1176
C370	ELECTR.CAPACITOR (470 $\mu$ F/50V)	ACH1177

#### RESISTORS

R318	CARBON FILM RESISTOR	RDR1/2PM153J
	OTHER RESISTORS	RDR1/4PM□□□J

#### OTHERS

MICA SHEET	AEC1143
STAR TERMINAL A	AKE1027
STAR TERMINAL B	AKE1028
SCREW	PMB30P100FCU

#### DIODE -L ASS'Y (AWZ3255)

#### SEMICONDUCTORS

D313	DIODE	11DF2FD
D315	DIODE	11DF2FD
D317	DIODE	11DF2FD
D319	DIODE	11DF2FD
D363	DIODE	31DF2FC

D365	DIODE	31DF2FC
D367	DIODE	31DF2FC
D369	DIODE	31DF2FC

#### OTHER

STAR TERMINAL B	AKE1028
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#### DIODE -R ASS'Y (AWZ3256)

#### SEMICONDUCTORS

D314	DIODE	11DF2FD
D316	DIODE	11DF2FD
D318	DIODE	11DF2FD
D320	DIODE	11DF2FD
D364	DIODE	31DF2FC

D366	DIODE	31DF2FC
D368	DIODE	31DF2FC
D370	DIODE	31DF2FC

#### OTHER

STAR TERMINAL B	AKE1028
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Mark	No. Description	Part No.
<b>MAIN CONTROL ASS'Y (AWZ3257)</b>		
<b>SEMICONDUCTORS</b>		
	IC401, 402 LOGIC IC	UPD4030BC
	IC403 LOGIC IC	TC4001BP
	IC404 OP-AMP IC	RC4558DXP
	IC405, 406 LOGIC IC	TC4023BP
	IC407, 408 DRIVER IC	TA7291S
	IC409 OP-AMP IC	RC4558DXP
	IC421 LOGIC IC	TC4078BP
	IC422 LOGIC IC	TC4025BP
	IC431-435 LOGIC IC	TC4001BP
	IC436 LOGIC IC	TC4011BP
	IC441 OP-AMP IC	RC4558DXP
	IC442 LOGIC IC	TC4066BP
	IC443 LOGIC IC	TC4011BP
	IC444 LOGIC IC	TC4066BP
	IC445-448 DRIVER IC	TA7291S
	IC451 OP-AMP IC	RC4558DXP
	IC463 REGURATOR IC	M5F79M24L
	IC464 REGURATOR IC	M5F78M05L
	Q401, 402 TRANSISTOR	RN2201
	Q403-406 TRANSISTOR	2SC2878
	Q407, 408 TRANSISTOR	RN1201
	Q409-412 TRANSISTOR	2SC2878
	Q413-416 TRANSISTOR	RN1201
	Q417 TRANSISTOR	RN1203
	Q431 TRANSISTOR	RN1203
	Q441-448 TRANSISTOR	RN1201
	Q451, 452 TRANSISTOR	RN2201
	Q453-456 TRANSISTOR	2SC2878
	Q457, 458 TRANSISTOR	RN1201
	Q459-462 TRANSISTOR	2SC2878
	Q463-466 TRANSISTOR	RN1201
	Q467-470 TRANSISTOR	2SA992
	Q471 TRANSISTOR	RN1203
	Q481-483 TRANSISTOR	RN1203
	Q484, 485 TRANSISTOR	RN1201
	Q491-495 TRANSISTOR	2SC1845
	Q501 TRANSISTOR	2SC3923
	Q502 TRANSISTOR	RN1203
	Q503 TRANSISTOR	2SC1845
	Q504 TRANSISTOR	2SA1529
	Q505 TRANSISTOR	RN2203
	Q506 TRANSISTOR	2SA1529
	Q507 TRANSISTOR	RN2203
	Q508 TRANSISTOR	RN1203
	Q509 TRANSISTOR	2SC1845
	Q510, 511 TRANSISTOR	RN1201
	Q521 TRANSISTOR	2SA1306
	Q522 N-FET	2SK246
	D401-404 ZENER DIODE	RD3.0ESB2
	D405-408 DIODE	1SS252
	D409 ZENER DIODE	RD5.6ESB2
	D411 DIODE	1SS252
	D431-436 DIODE	1SS252

Mark	No. Description	Part No.
	D441-444 ZENER DIODE	RD3.0ESB2
	D445-452 DIODE	1SS252
	D453 ZENER DIODE	RD9.1ESB
	D454, 455 DIODE	1SS252
	D461, 462 DIODE	1SS252
	D463 ZENER DIODE	RD6.8ESB
	D464 DIODE	11E2
	D471 ZENER DIODE	RD13ESB
	D472 ZENER DIODE	RD33ESB2
	D473 DIODE	RB152
	D474, 475 DIODE	S1WB20
	D476, 477 DIODE	1SS252

#### CAPACITORS

C401, 402	MYLOR FILM CAPACITOR	CQMA473K50
C403-406	ELECTR.CAPACITOR	CEAS4R7M50
C407, 408	MYLOR FILM CAPACITOR	CQMA473K50
C409	AUDIO FILM CAPACITOR	CFTXA105J50
C414	MYLOR FILM CAPACITOR	CQMA473K50
C415	MYLOR FILM CAPACITOR	CQMA104K50
C421, 422	ELECTR.CAPACITOR	CEAS220M50
C431, 432	MYLOR FILM CAPACITOR	CQMA473K50
C433-436	MYLOR FILM CAPACITOR	CQMA683K50
C437, 438	MYLOR FILM CAPACITOR	CQMA473K50
C439	MYLOR FILM CAPACITOR	CQMA224K50
C440	ELECTR.CAPACITOR	CEAS331M16
C441	ELECTR.CAPACITOR	CEAS010M50
C442	ELECTR.CAPACITOR	CEAS331M16
C443	ELECTR.CAPACITOR	CEAS100M50
C444	ELECTR.CAPACITOR	CEAS102M16
C461	ELECTR.CAPACITOR	CEAS102M16
C462	ELECTR.CAPACITOR	CEAS470M16
C463	ELECTR.CAPACITOR	CEAS222M25
C464, 465	ELECTR.CAPACITOR	CEAS100M50
C466	ELECTR.CAPACITOR	CEAS471M25
C467	ELECTR.CAPACITOR	CEAS222M25
C468	ELECTR.CAPACITOR	CEAS220M50
C469	ELECTR.CAPACITOR	CEAS331M50
C470	ELECTR.CAPACITOR	CEAS102M50
C471	MYLOR FILM CAPACITOR	CQMA104K50
C472	ELECTR.CAPACITOR	CEAS222M16
C473	MYLOR FILM CAPACITOR	CQMA104K50
C474	ELECTR.CAPACITOR	CEAS220M50

#### RESISTORS

VR401, 402	VARIABLE RESISTOR (10k)	VRTS6VS103
VR403	VARIABLE RESISTOR (220)	VRTS6VS221
VR404	VARIABLE RESISTOR (10K)	VRTS6VS103

Mark	No. Description	Part No.
R401, 402	RESISTOR ARRAY (22k)	RA5S223J
R403, 404	METALFILM RESISTER RN1/4PC6042F	
R405, 406	METALFILM RESISTER RN1/4PC3002F	
R407, 408	METALFILM RESISTER RN1/4PC1502F	
R409, 410	METALFILM RESISTER RN1/4PC7501F	
R411, 412	METALFILM RESISTER RN1/4PC1242F	
R555, 556	METALFILM RESISTER ACN1079 (2.74K 1/4W)	
R557, 558	METALFILM RESISTER ACN1080 (3.01K 1/4W)	
R559, 560	METALFILM RESISTER RN1/4PC4122F	
R561, 562	METALFILM RESISTER RN1/4PC2401F	
R563	METALFILM RESISTER	RN1/2PC8201F
R564	METALFILM RESISTER (3.01K 1/4W)	ACN1080
R565	METALFILM RESISTER	RN1/4PC4122F
R566	METALFILM RESISTER (2.74K 1/4W)	ACN1079
R567	METALFILM RESISTER (4.99K 1/4W)	ACN1081
R568	METALFILM RESISTER (3.01K 1/4W)	ACN1080
R591, 592	FUSIBLE RESISTOR (2.2 1/4W)	ACN-157
R594-596	FUSIBLE RESISTOR (2.2 1/4W)	ACN-157
R597	FUSIBLE RESISTOR	RFA1/4PL270J
R598	METAL OXIDE RESISTOR	RS1LMF560J
R599	CARBONFILM RESISTOR	RD1/4PM101J
	OTHER RESISTORS	RD1/8PM□□□J
<b>OTHER</b>		
CN422	PLUG 8-P SCREW	AKM1071 PMB30P100FCU

## FUNCTION SW ASS'Y

### SEMICONDUCTORS

Q601, 602	TRANSISTOR	2SC1845
D601	ZENER DIODE	RD5.1ESB2

### SWITCH

S601	SWITCH (FUNCTION)	ASD1010
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### RESISTORS

R601-611	METALFILM RESISTER	RN1/4PC1200F
R612	METALFILM RESISTER	RN1/4PC5900F
R613	METALFILM RESISTER	RN1/4PC6201F

## FRONT SW-A ASS'Y

### SWITCHES

S612	SWITCH (OUTPUT)	ASD1009
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Mark	No. Description	Part No.
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## FRONT SW-B ASS'Y

### SWITCHES

S622	SWITCH (BALANCE INPUT)	ASD1008
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## REGULATOR ASS'Y (AWZ3261)

### SEMICONDUCTORS

IC631, 632	REGURATOR IC	M5F7812L
Q631	TRANSISTOR	2SD1275

### OTHER

SCREW	PMB30P100FCU
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## FRONT SW-C Ass'y

S611	SWITCH	ASD1008
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## FRONT SW-D Ass'y

S621	SWITCH (REC ON/OFF)	ASD1008
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## 4. ADJUSTMENTS

### VR POSITION DETECTION CENTER ADJUSTMENT

Step	*1 Measurement Location	Adjustment Location	Specifications
1	—	—	Set the main volume on the front panel to minimum, and turn on the power. Adjustment is possible with or without input.
2	Between TP6 and TP5	VR403	Adjust so that the measurement location value is $0V \pm 2mV$ .
3	Between TP4 and TP3	VR404	
4	Between TP4 and TP1	VR401	
5	Between TP4 and TP2	VR402	
6	—	—	Repeat steps 2 and 3.

\*1: Should be measured with digital voltmeter.

Note: After adjustment, turn up the front main volume gradually (slowly), and confirm so that the axles of VR1 and VR2 rotate little by little in response to the front main volume adjustment. (If one of the axle does not rotate and vibrates slightly, repeat the adjustment.)

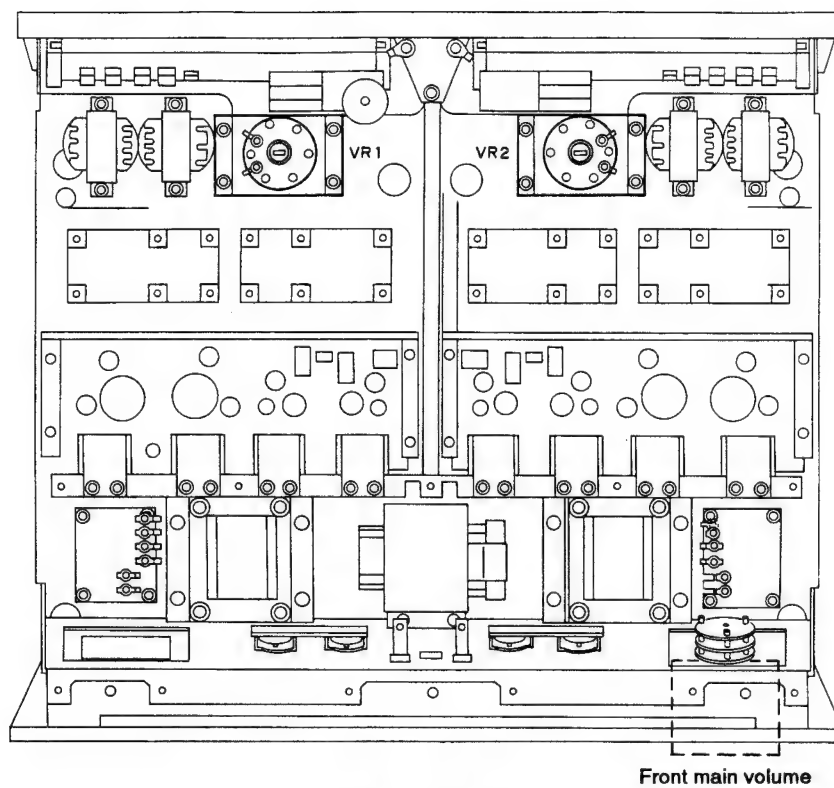


Fig4-1 Top view

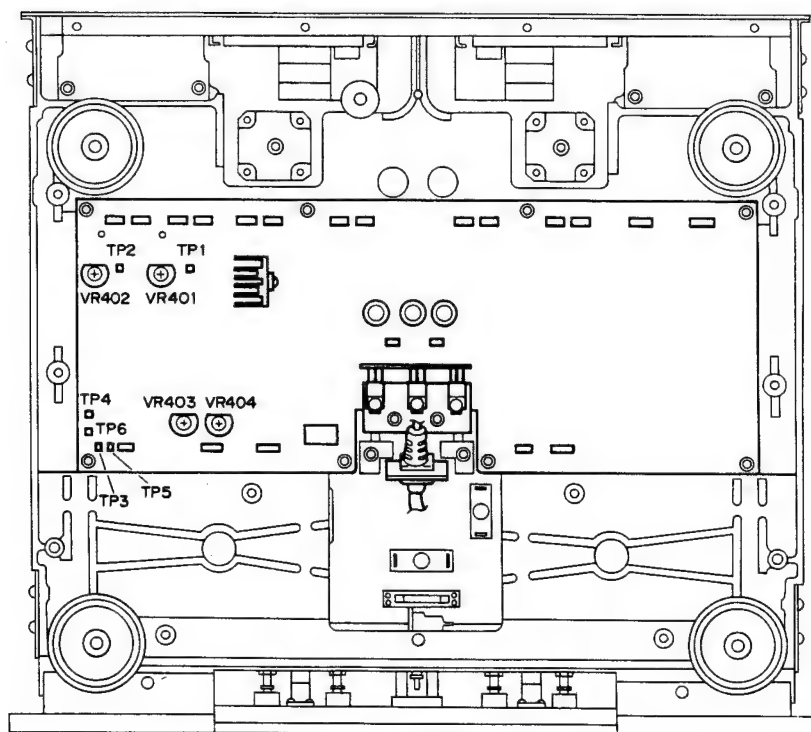


Fig4-2 Bottom view

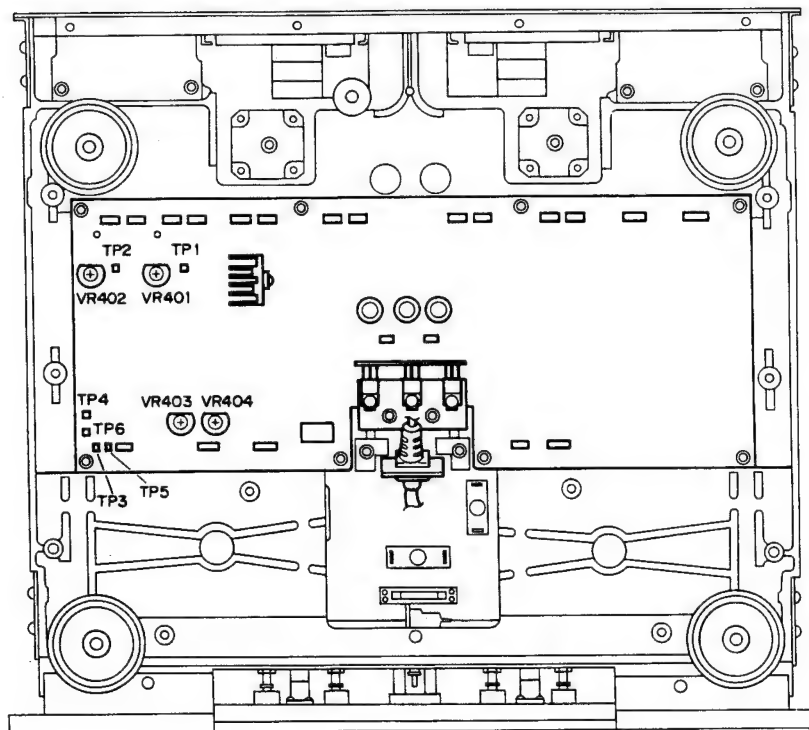
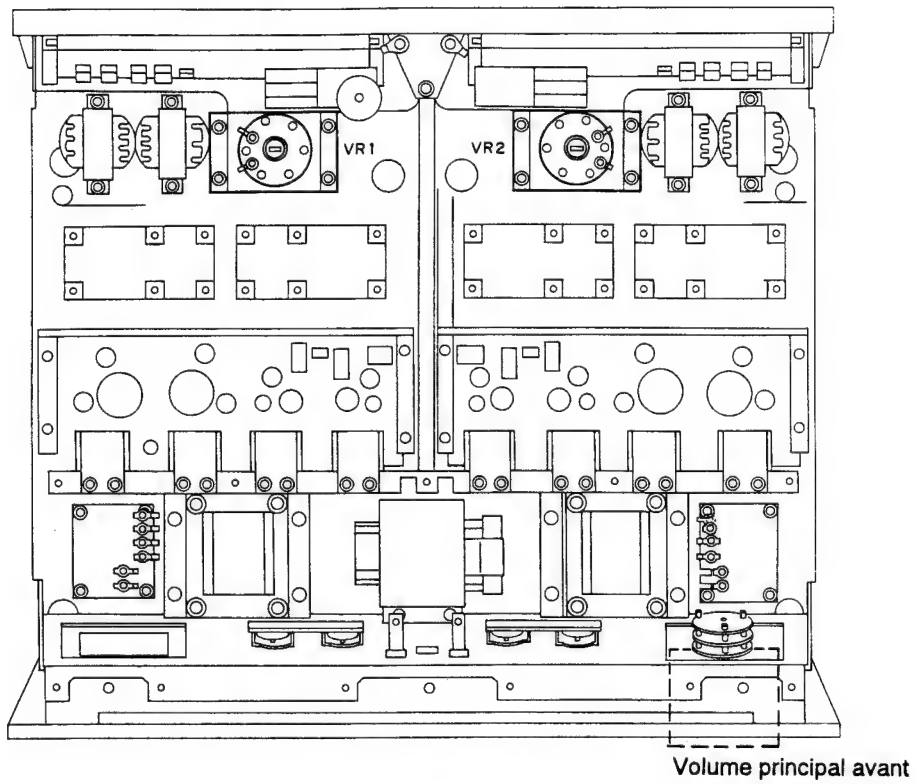
## 4. RÉGLAGES

### RÉGLAGE DU CANTRE DE DÉTECTION DE POSITION VR

Etape	*1 Point de mesure	Emplacement de l'ajustement	Spécifications
1	—	—	Régler de volume principal sur le panneau avant au minimum et mettre sous tension. L'ajustement est possible avec ou sans entrée.
2	Entre TP6 et TP5	VR403	Régler de façon à ce que la valeur du point de mesure soit de $0 \pm 2\text{mV}$ .
3	Entre TP4 et TP3	VR404	
4	Entre TP4 et TP1	VR401	
5	Entre TP4 et TP2	VR402	
6	—	—	Répéter les étapes 2 et 3.

\*1: Doit être mesurée avec un voltmètre numérique.

Remarque: Après l'ajustement, augmenter graduellement (lentement) le volume principal avant et confirmer que les axes de VR1 et VR2 tournent peu à peu en réponse au réglage du volume principal avant.  
(Si l'un des axes ne tourne pas et vibre légèrement, répéter l'ajustement.)





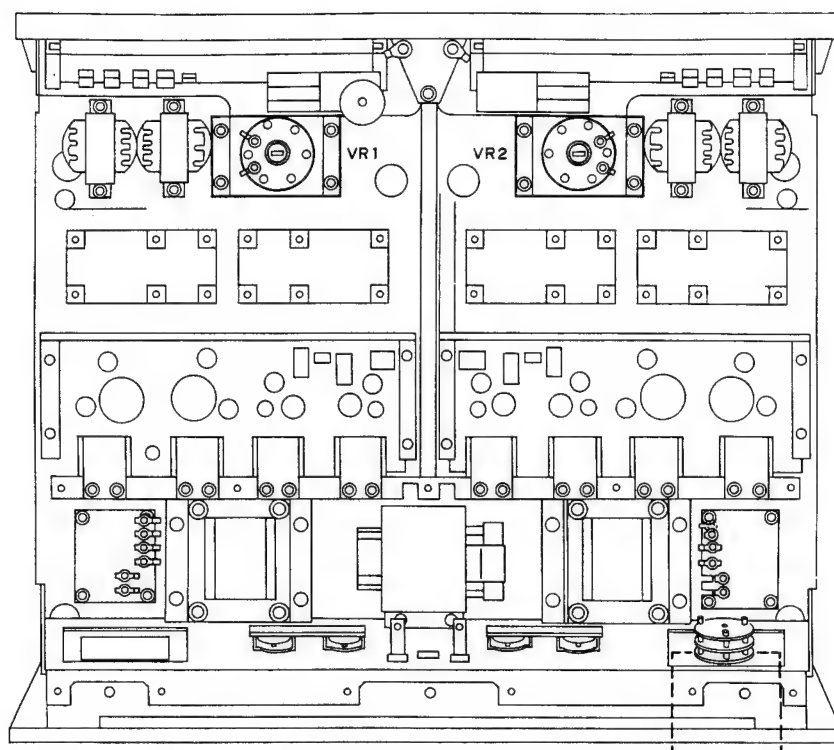
## 4. AJUSTES

### AJUSTE DEL CENTRO DE DETECCIÓN DE LA POSICIÓN DEL VR

Paso	*1 Lugar de medición	Lugar de ajuste	Especificaciones
1	—	—	Coloque el volumen principal del panel delantero al mínimo y conecte la alimentación. El ajuste es posible con o sin entrada.
2	Entre TP6 y TP5	VR403	Ajuste de forma que el valor en el lugar de ajuste sea $0V \pm 2mV$ .
3	Entre TP4 y TP3	VR404	
4	Entre TP4 y TP1	VR401	
5	Entre TP4 y TP2	VR402	
6	—	—	Repita los pasos 2 y 3.

\*1: Debe medirse con un voltímetro digital.

Nota: Después del ajuste, suba gradualmente (lentamente) el volumen principal delantero y confirme que los ejes de VR1 y VR2 giran poco a poco en respuesta al ajuste del volumen principal delantero.  
(Si uno de los ejes no gira y vibra ligeramente, repita el ajuste.)



Volumen principal delantero

Fig. 4-1 Vista de abajo arriba

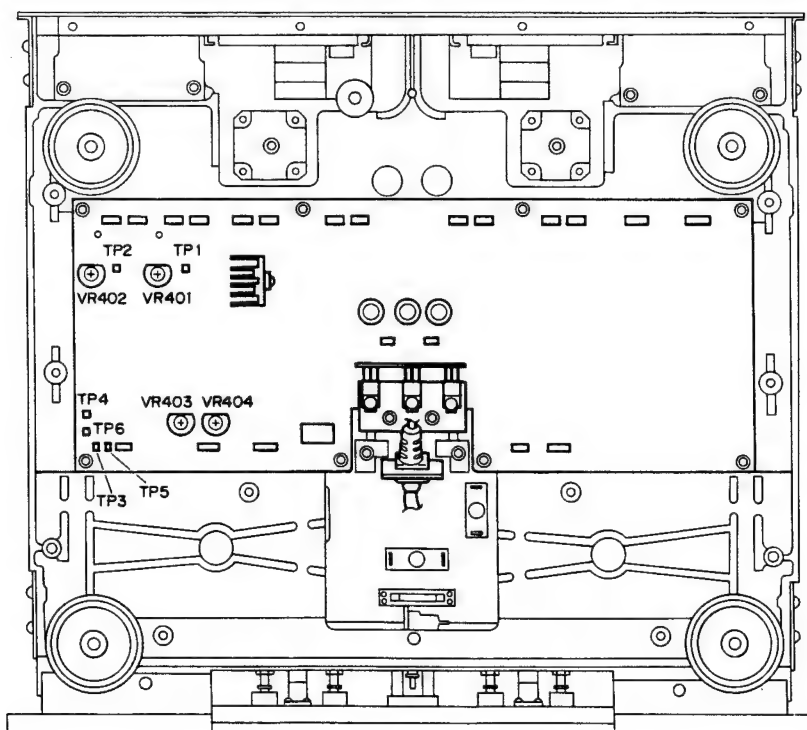
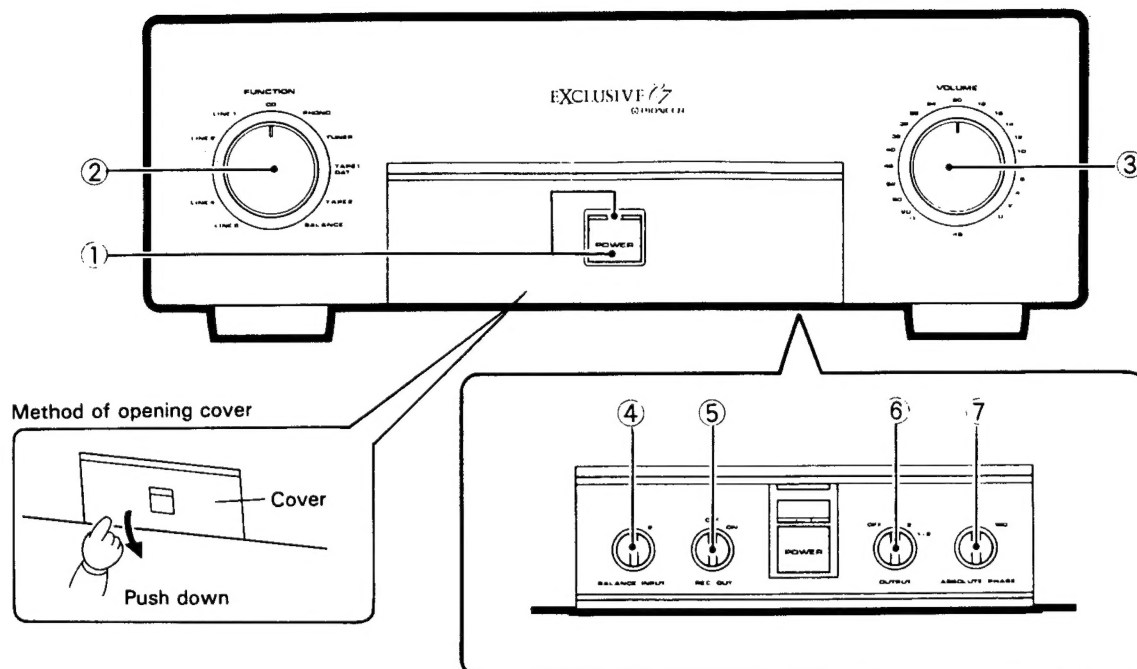


Fig. 4-2 Vista superior

## 5. FRONT PANEL FACILITIES



### ① Power switch(POWER)/indicator

Press to set the power ON/OFF.

When in the ON position, the indicator lights up. No sound will be heard from the speakers for about 6 seconds as a muting circuit is activated to prevent switching noise.

### ② Function selector switch(FUNCTION)

Use to select program source for playing.

[CD] ..... To play a compact disc player connected to CD terminal.

[PHONO] ..... To play a turntable connected to PHONO terminal.

[TUNER] ..... To play a stereo tuner connected to TUNER terminal.

[LINE1~LINE5] ..... To play AUDIO equipment connected to LINE terminals.

[TAPE1/DAT] ..... To play a cassette deck connected to TAPE1/DAT terminal.

[TAPE2] ..... To play a cassette deck connected to TAPE2 terminal.

[BALANCE] ..... To play AUDIO equipment connected to BALANCE terminal.

#### NOTE:

A motor is used to select the function. The function is activated 5 seconds (maximum) after it is selected (e.g. from LINE5 to BALANCE).

### ③ Volume control(VOLUME)

Use to adjust sound volume. Figures on the dial show the attenuation level when rated output level (1V) is considered to be 0dB.

At the [∞] position, sound will not be heard.

#### NOTE:

A motor is used to adjust the volume control.

The volume control is activated 2 seconds (maximum) after it is turned (e.g. from ∞ to 0 dB).

### ④ Balance input selector switch (BALANCE INPUT)

Select either of two balanced inputs.

1 ..... To play equipment connected to balance input 1.

2 ..... To play equipment connected to balance input 2.

### ⑤ Recording output on/off selector switch (REC ON/OFF)

[ON] ..... To output recording signal to terminals of TAPE1/DAT REC, TAPE2 REC and OUT terminals of LINE4 and LINE5.

[OFF] ..... To stop output recording signal. When not recording, set the switch to OFF position in order to prevent a connected external terminal from interfering with this terminal, thus ensuring high quality sound.

**6 Output selector switch (OUTPUT)**

Use to select output terminal.

- [OFF] ..... To stop signal output to both output terminals(OUTPUT1, and 2).
- [1] ..... To output a signal to OUTPUT1 terminal(pin-plug) only.
- [2] ..... To output a signal to OUTPUT2 terminal(cannon plug) only.
- [1 + 2] ..... To output a signal to both output terminals(OUTPUT1 & 2).

**7 Phase selector switch (ABSOLUTE PHASE)**

Use to shift phase both output signals (L and R channels) 180 degrees. When this equipment is used as a component of a system, this feature is helpful to align the phases of appliances connected to this preamplifier.

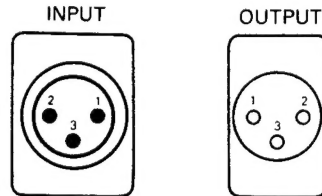
0° ..... Set to this position normally.

180° ..... Use when the phases of equipment are not aligned.

**CONNECTING BY CANNON PLUG**

This appliance is equipped with cannon plugs for two input and one output terminals besides normal pin-jack plugs. When using cannon plugs, connect the balanced output terminal of this equipment to the balanced input terminal of an amplifier (such as an M6) using commercially available cannon plug connecting cords. Using balanced input prevents external noise interference thus enabling high quality sound.

Balance INPUT, OUTPUT



- 1 GND  
2 COLD (-)  
3 HOT (+)

**NOTE:**

When connecting the Cannon plug with the Pioneer EXCLUSIVE M6, adjust the ABSOLUTE PHASE switch to 180°. (The M6 Balance INPUT is for 1 GND, 2 HOT (+), 3 COLD (-)).

**6. SPECIFICATIONS****Amplifier section****Input terminals (sensitivity/impedance)**

- PHONO MM ..... 2.5 mV/50 kΩ
- CD ..... 150 mV/50 kΩ
- TUNER ..... 150 mV/50 kΩ
- LINE1, 2, 3, 4, 5 ..... 150 mV/50 kΩ
- TAPE PLAY1, TAPE2 ..... 150 mV/50 kΩ
- BALANCE IN 1, 2 ..... 150 mV/600 Ω

**Output terminals (output level/output impedance)**

- TAPE REC 1, 2 ..... 150 mV/1 kΩ
- OUTPUT1 ..... 1 V/0.1 Ω
- OUTPUT2 (BALANCE) ..... 1 V/200 Ω

**Maximum output level**

- TAPE REC (1 kHz, T.H.D. 0.01%) ..... 12 V
- OUTPUT1 (20 Hz ~ 20 kHz, T.H.D. 0.01%) ..... 5 V
- OUTPUT2 (BALANCE 1 kHz, T.H.D. 0.01%)
- Load impedance = 600 Ω ..... 3 V
- Load impedance = 10 kΩ ..... 5 V

**PHONO overload level (1 kHz, T.H.D. 0.01%)**

- PHONO MM ..... 200 mV

**Miscellaneous**

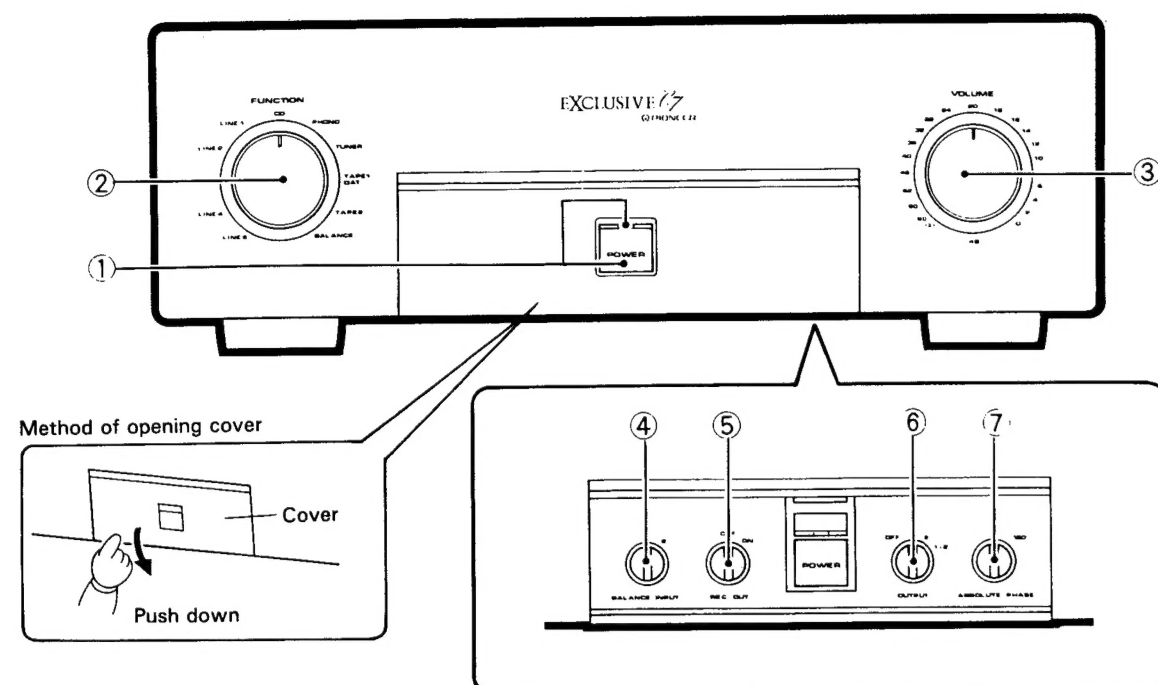
- Power requirements ..... AC 220 V ~ 230 V, 50/60Hz
- Power consumption ..... 70W
- External dimensions ..... 460(W) × 158(H) × 446(D)mm
- Weight ..... 25.4 kg

**Accessories**

- Operating Instructions ..... 1

*The specifications and appearance noted above are subject to change without notice due to improvements.*

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[TAPE1/DAT] ..... To play a cassette deck connected to TAPE1/DAT terminal.  
[TAPE2] ..... To play a cassette deck connected to TAPE2 terminal.  
[BALANCE] ..... To play AUDIO equipment connected to BALANCE terminal.

**NOTE:**  
A motor is used to select the function. The function is activated 5 seconds (maximum) after it is selected (e.g. from LINE5 to BALANCE).

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Use to select output terminal.  
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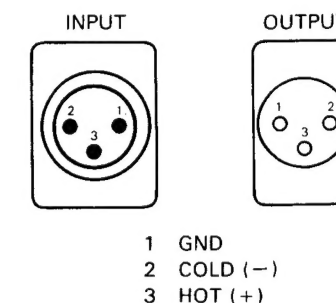
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BALANCE IN 1, 2	150 mV/600 Ω

Output terminals (output level/output impedance)

TAPE REC1, 2	150 mV/1 kΩ
OUTPUT1	1 V/0.1 Ω
OUTPUT2 (BALANCE)	1 V/200 Ω

Maximum output level

TAPE REC (1 kHz, T.H.D. 0.01%)	12 V
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PHONO overload level (1 kHz, T.H.D. 0.01%)

PHONO MM	200 mV
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### Miscellaneous

Power requirements	AC 220 V ~ 230 V, 50/60Hz
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